CHILD SURVIVAL AND SAFE MOTHERHOOD PROGRAMME – KARNATAKA

An Action Plan

Department of Health and Family Welfare
Government of Karnataka
1992

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FOREWORD

In spite of launching the national Family Planning Programme during 1950s and renaming it as the National Family Welfare Programme, to broaden its objectives in late 1970s, the programme has not yet succeeded in creating the desired effective demand for utilisation of family welfare services in the community. The present infrastructure to deliver Family Welfare Services and the financial investments available in the National Family Welfare Programme have not been optimally utilised as indicated by several Demographic Indicators. For example, despite the increase in couple protection rate there is no significant decline in the birth rate. Similarly the maternal and infant mortality rate continue to be high in the State. So far, the services beingdelivered, especially for the mother and child in the form of isolated and fragmented programmes/schemes appears to be failing in giving desired outcomes. The only hope, which is likely to yield better progress in shorter period, is to provide a package of services combining Immunization with selected mother and child Health Interventions progressively. This is being achieved through the implementation of Child Survival and Safe Motherhood project in the State in a phased manner, as part of 100% Centrally Sponsored Family Welfare Programme.

It is hoped that this document would provide the necessary information and guidance to the Programme Managers, Medical and para-medical personnel of Health and Family Welfare Department, Officers of other Departments, Voluntary Organisation and also Research Scientists.

BANGALORE
SEPT 4, 1992

G. PUTTASWAMY GOWDA
MINISTER FOR HEALTH AND FAMILY WELFARE
GOVERNEMENT OF KARNATAKA

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Child Survival and Safe Motherhood
A Plan of Action for Karnataka

SECTION I: EPIDEMIOLOGICAL SITUATION

Karnataka has a population of 44.81 million as per 1991 census and ranks eighth in terms of population size in India (as also in 1981). The growth rate was 26.75 per cent during 1971-81, fallen to 20.69 per cent for the decade 1981-91, which is now below the national average.

There are inter-state variations with a definite geographical pattern. It may be seen that less developed districts of the Karnataka region continue to register a high growth rate while there has been a considerable decrease in the growth rate in the Malnad areas. The coastal districts of Dakshin Kannad and Uttar Kannad also show a considerable decline in the growth rate. The sex ratio of Karnataka has declined from 963 in 1981 to 960 in 1991 indicating adverse mortality experience of females. Though the female literacy rate in Karnataka has increased from 33.16 per cent in 1981 to 44.34 per cent in 1991, the ratio of literate females to literate males continue to be almost that of 1:2. The mean age at marriage of female increased from 16.5 in 1961 to nearly 18 in 1971 and 19 in 1981. Presently, age at marriage in Karnataka is slightly higher than that of the entire country, but lower than that of Punjab and Kerala by two to three years.

The infant mortality rate of Karnataka is 71 per 1,000 live births in 1990, 81 in rural areas and 39 in urban areas. It is estimated that around 85,644 infants die every year - that is 240 infants per day and 10 infants per hour. About twice this number of children of under five-years of age die. Reduction in infant mortality requires better medical care at the neo-natal stage which would be possible only with close medical supervision during pregnancy and delivery. The major causes of death in infants are prematurity, respiratory infections, diarrhoea and tetanus. A study in Karnataka found that neo-natal deaths among children, early neonatal deaths in particular, are to a large extent due to mother's ill-health and delivery-related factors. Measles was also found to be a major cause of death.

There are several contributory factors for high mortality rates in young children. To begin with, about 30% of newborns have low birth-weight which is a significant underlying cause of death in newborns and infants. Exposure to unfavourable environmental conditions and infections such as tetanus (about 6% of total child deaths or 21,900 per annum), measles

(about 11% or 40,200 per annum), respiratory infections (15% or 54,800 deaths per annum), diarrhoea (28% or 102,300 deaths per annum) are the major causes of death and illness in young children. Two-thirds of all deaths in infants and children under five can be prevented by specific interventions to control deaths due to diarrhoea, pneumonia and vaccine-preventable diseases. Vitamin A deficiency is estimated to result in blindness in 2,800 children every year. Without the immunization program, around 12,000 children would be lame due to poliomyelitis every year. Birth Asphyxia is also a major killer; therefore, improved neonatal care is important.

Maternal mortality rate in Karnataka is estimated to be between 400-500 per 100,000 live births. Based on this, it is estimated that 11,200 mothers die due to child birth every year in the state of Karnataka -- 30 in a day -- one every hour. The major immediate cause of maternal deaths are bleeding (22% or 2,500 deaths per annum), anaemia (20% or 2,250 per annum), puerperal sepsis (12% or 1,350 per annum), Toxaemia (12% or 1,350 per annum), the underlying factors being early marriage, early and frequent child bearing with short-spaced pregnancies in the context of low literacy levels, malnutrition and poor availability of proper maternity services. 99 per cent of these deaths can be prevented over time with appropriate health, social and economic measures; and over two-thirds of these deaths can be prevented now, if appropriate health measures are instituted.

SECTION II: GOALS AND OBJECTIVES

The Government of Karnataka has articulated specific goals to improve the survival of mothers and children in the next decade. They are listed below:

	Mortality reduction	By 1995	By 2000 AD
1.	Infant mortality rate will be reduced from 71 per 1000 live-births in 1990 to	60	40
2.	Age-specific death rates in 1-4 years of age (below 5) to be reduced from existing level of 31 in 1990 to	20	10
3.	Maternal mortality rate will be reduced from 400 per 100,000 live-births in 1990 to	300	200
2.	**CONTROL OF CHILDHOOD DISEASES**		
2.1	Eradication of Polio	10 dists	All dist. & urban areas
2.2	Elimination of Neonatal Tetanus by 1995	100%	100%
2.3	Reduction from existing levels in Measles		
	– Deaths	by 95%	
	– Cases	by 90%	
2.4	Reduction from existing levels in Diarrhoeal		
	– Deaths	by 30%	by 70%
	– Cases	by 10%	by 25%
2.5	Reduction in deaths due to Acute Respiratory Infections	by 10%	by 40%
2.6	Virtual elimination of Blindness and other consequences of vitamin A deficiency from the existing level.	1%	NIL

		By 1995 (1991–95)	By 2000 AD (1996–2000)
3.1	Pregnant women to be given iron and folic acid: coverage to be increased from the existing level of 30% in 1990 to	100%	100%
3.2	Pregnant mothers receiving antenatal care increased from 30% in 1990 to	100%	100%
3.3	Deliveries by trained birth attendants increased from 15% in 1990 to	85%	100%
3.4	Establish effective units for first level referral	1/500,000 population	1/500,000 population
3.5	Access by all couples to information and services for child spacing from 35% in 1990 to	75%	100%
3.6	Services to increase proportion of births spaced 3 years apart from existing levels to	30%	60%
3.7	Services to decrease proportion of births in women below 20 years from the existing level to less than	10% 100%	2% 100%
3.8	Effective couple protection rate to be increased from the existing level of 46% in 1990 to	55%	65%
3.9	Increase coverage with Vitamin A prophylaxis is children 9 months to 3 years from 20% in 1990 to	100%	100%
3.10	Immunization status:		
	– TT for pregnant women from 75% in 1990 to	100%	100%
	– DPT (infants) from 80%		
	– DPT Boot\ster from 50%	100%	100%
	– OPV (infants) from 80% to	100%	100%
	– BCG (infants) from 80% to	100%	100%
	– DT (new entrants of school 5–6 years) from 30% in 1990 to	80%	100%
	Measles vaccine from 80% in 1990 to	100%	100%

The objective of the child survival and safe motherhood program is to operationalize, in a phased manner, a strategy consisting on state-wide child survival and safe motherhood package (using the strategies for program implementation which were instituted under the immunization program).

Specifically the interventions will aim at:

- sustaining the immunization program
- universalizing a child survival package and safe motherhood (UIP Plus package)
- initiating and implementing a safe motherhood program.

The components of the child survival (UIP Plus package) will contain strategies to control, eliminate/eradicate vaccine- preventable diseases, particularly poliomyelitis, neonatal tetanus and measles; control of diarrhoeal diseases, reduction of deaths due to pneumonia among children under-five; control of blindness due to vitamin A deficiency among children below 3 years. The package for safe motherhood will comprise of strengthening of the first level referral units (1 for 500,000 population) in terms of equipment and training; and involving the Traditional Birth Attendants along with the multi-purpose health workers, in ante-natal and post-natal care as well as improved care during delivery, through continued training and frequent contact. A program for controlling anaemia among pregnant women will be universalized throughout the state. Improved care for mothers will specifically deal with the major causes of maternal mortality, that is -- sepsis, toxaemia, bleeding, anaemia, obstructed labour and uncontrolled fertility. Communities will be informed of the need to avail of safe services for medical terminated of pregnancy.

There are three specific objectives:

(a) to expand and improve the quality of care and universalize a set of child survival programs (i.e. UIP and UIP Plus, which includes control of diarrhoea, pneumonia, anaemia);

(b) to develop and initiate a Safe Motherhood Program; and

(c) to provide support to existing institutional systems to enable them to deliver more effectively Child Survival and Safe Motherhood services.

SECTION III: STRATEGY

The National Development Council, while emphasizing the importance of the interventions directed towards reduction of infant and child mortality rates in the context of arresting the unduly high population growth rates, recommended implementation of an integrated package for bringing about qualitative improvement in the availability of maternal and child survival services.

1. DOING THE POSSIBLE NOW

Today, there are low cost technologies available to save two- thirds of the totally unnecessary young child and maternal deaths by immunizing mothers and infants, preventing dehydration due to diarrhoea and deaths due to pneumonia, providing essential care at village and first level for pregnant women and nursing mothers. A minimum set of feasible interventions will be implemented by the state of Karnataka.

2. CHILD SURVIVAL FOR POPULATION CONTROL

The link between population control and child survival is now well established. This underlines the need to address the causes of child mortality not only for itself but as an essential component of population control. The control of population size is a critical issue in the Indian context from the point of view of the environment as well as the health and well being of mothers and children. The present emphasis on sterilization techniques diminishes the importance of critical strategies such as delaying marriage, postponing the first pregnancy and promoting optimal child bearing pattern. Birth spacing and timing will be positioned as a health measure for mothers and children.

3. FROM UIP TO UIP PLUS

Implementation of the Universal Immunization Programme (UIP) in the last five years has provided an opportunity of reaching all mothers and children, particularly infants and pregnant mothers, with other health interventions necessary for achieving the goals set in the national health policy. The Strategy in the Eighth Plan would be to use the

opportunity created by the Universal Immunization Programme in terms of continued contact with mother and young children for implementing a UIP Plus package of services, combining immunization with other basic MCH interventions progressively.

4. UNIVERSAL INTERVENTIONS: REACHING ALL

Technologies for saving lives can be made available for all young children and mothers throughout the country. In Karnataka, in 20 districts covering 44.81 million people, about 1.4 million births take place every year. Supporting and organizing effective and essential services for mothers and young children throughout the state is the challenge.

The state will implement a package of services for mothers and children, which is as follows:

(a) **Child (below 3 years) :**

- Immunization
- Control of diarrhoeal diseases
- ARI: Pneumonia therapy
- Vitamin A prophylaxis
- Newborn care at home level

(b) **Mother**

- Immunization
- Control of Anaemia during pregnancy
- Ante-natal care
- Screening and referral of high risk cases
- Care of problems: sepsis, toxaemia, bleeding, obstruction
- Space and timing of births

5. ENERGIZING THE PRIMARY HEALTH CARE SYSTEM WITH SELECT INTERVENTIONS

The experience of the Universal Immunization Programme over the last five years clearly demonstrates the effectiveness of a specific health intervention in strengthening

the primary health care system. A complementary set of interventions and strategies that address the major causes of death in mothers and children has now been articulated, with specific operational guidelines to ensure that adequate support is provided to improve coverage with services.

6. THE MINIMUM ESSENTIAL TECHNOLOGY

For effective outcome, the primary health care system can be energized with a set of specific interventions, supported by minimum appropriate essential supplies and equipment, adequate training for improving the skills of health personnel and effective communication for communities and people. The need of the hour is to provide resource for this.

7. MAKING THE INFRASTRUCTURE FUNCTIONALLY EFFECTIVE

The last 20 years have seen a significant expansion of the health infrastructure both health centres and manpower. From around 400 health centers and no PHUs and no sub-centers in the early 1950s there are over 1140 primary health centers and 848 PHUs and 7793 sub-centers in Karnataka today. There are around 14,000 female multi-purpose health workers in position. These health facilities which form basis for primary health care, now need to be supported adequately to become functionally effective; and provide essential services for mothers and children.

8. SYSTEMS SUPPORT

The essential support for operationalizing the package of services will be provided:-

(a) **Unified training for all levels of functionaries.** The emphasis would be on creating district level resource teams capable of providing technical guidance to the medical and paramedical personnel. All medical and paramedical workers will be trained in every district for implementing this programme.

(b) **Unified logistics for all interventions.** For the UIP, and elaborate system of supplies has been instituted. This would now be used to add the supplies required for the other interventions as well.

(c) **Integrated Management Information System.** A set of beneficiary cards and sub-centre registers have already been developed under UIP making it possible to integrate reporting for other services. In the districts to be taken up now for

the phased strengthening of child survival and safe motherhood, the Management Information System will be suitably strengthened as described later.

(d) **Comprehensive Health Card.** A comprehensive health card will be introduced, incorporating immunization, ante-natal care, iron- folic acid, vitamin A, birth-weight and risk in mothers. This will be according to the standard design being developed by Government of India. As a tool for health education as well as recording events, the counterfoil will be linked to the recording system.

(e) **Integrated communication.** In the immunization programme, a communication strategy, which addressed "protection" of infants was developed positioning immunization as one of the important interventions for protecting babies. This umbrella concept will now be enlarged to include protection against other diseases, death and disability.

9. ENABLING THE WORKER

Studies have shown gross under-utilization of promotive and preventive services, and an overload of district hospitals for curative care. Less than 20 per cent of children suffering from diarrhoea or pneumonia use the government health facilities in rural areas when effective services are not available. This utilization pattern chages dramatically if health workers are empowered with proper training and supported with adequate drugs and supplies. In this context, the challenge is to enable the health worker; define and support the minimum levels of service facilities required (in terms of supply, drugs, vaccines, training of personnel, communication for improved utilization), which will be implemented by the state of Karnataka in all districts.

10. REACHING PEOPLE

The "fixed day strategy", whereby immunization services were available regularly in every village, was an important operational step to ensure that services reach people close to their homes, on fixed days that were known to communities in advance. Every family with a mother and infant was contacted at least seven times over the year. This improved accountability of the health care delivery system to people. Using the greater frequency of community contacts, the implementation of a child survival and safe motherhood package (UIP Plus), in a phased manner, is now a tenable proposition.

11. COMMITMENT

The enormous task of providing immunization services in every village has been possible because of strong government and political commitment, backed by sound professional support. A similar process is under way for supporting child survival and safe motherhood which needs to be backed with adequate resources.

12. INTER-SECTORAL LINKAGES

National, state and local organizations played a critical role in a grand alliance for survival of found children through immunization. Rotarians with 'Polio Plus', Lions declaring that the world should be 'Minus Measles', numerous local non- governmental organizations, private practitioners, contributed. The Integrated Child Development Services, Education and Information units joined hands around common goals. For a cause of saving babies and mothers, the government will facilitate their participation. voluntary agencies can also provide services for a considerable segment of the population. They will be encouraged to take responsibility for services in a defined geographic area.

13. PRIVATE PRACTITIONERS

Private medical practitioners will be involved in a systematic way to support government in the provision of services for mothers and young children.

14. ENSURING AVAILABILITY OF SERVICES

All vacancies of health staff, and female health workers in particular, will be filled up on a priority basis to provide these life-saving services for mothers and children.

15. SAFE MOTHERHOOD

Maternal mortality rates are very high. For permanent and lasting changes, social, economic and health interventions will have to be implemented that will improve the literacy and income generating capacity of women. However, for the immediate, it is essential that adequate services be provided to save the lives of women who are dying.

For this, essential obstetric services will be made available at village level through traditional birth attendants, supported by female health workers and health assistant.

All women requiring emergency care will progressively have access to services at institutions hereafter referred to as "first level referral services". District hospitals, tahasil hospitals and selected community health centres will be strengthened as first level referral units for dealing with obstetric emergencies.

16. EMPOWERING WOMEN

Recognizing that the health of women is relatively less important than other members of society, and knowing that her self-effacing behaviour limits her utilization of appropriate health services, a concerted effort will be made to address cultural and societal values that perpetuate this.

17. URBAN SERVICES

In urban areas there is no organised infrastructure. The multiplicity of agencies, both public and private services, locations and growth of medical facilities are all largely unplanned. All health functionaries will be given defined geographic areas. To the extent possible, one male and one female worker will be made available for every 10,000 to 15,000 population in view of the density of population in towns. For all maternity and child health activities and family welfare, the Municipal health Officer will be the nodal officer to direct and coordinate the UIP Plus and safe motherhood activities.

All functionaries of various schemes such as ICDS, UBS, may be pooled to facilitate development. Though the various functionaries will be administratively under different agencies, their technical work will be coordinated and supervised by the nodal officer.

The private medical practitioners and voluntary agencies will also provide services for defined segment of the population and would be responsible for achieving the goals and targets.

18. THE DISTRICT: AN EFFECTIVE UNIT

The district has proven to be an effective unit for planning and implementation of the immunization programme. District plans were prepared for operationalising the project, which scheduled services right upto village level and indicated the logistics and manpower support needed. Mobilization of district level organizations, the involvement of District Collectors, provision of supplies according to norms set for each district, training, monitoring and communication within the districts, were all critical for programme

achievement. Similarly, for the programme on child survival and safe motherhood. the district will be the unit for planning and implementation.

A district plan will be developed for each district for this programme.

19. PHASING

The child survival and safe motherhood programmed will be operationalized in a phased manner in districts, according to the following schedule.

1991–92	1992–93	1993–94	1994–95	1995–96
Bangalore (R)	Bangalore (U)	Gulbarga	Belgaum	Mysore
Chikmangalore	Kolar	Bellary	Uttar Kannada	Kodagu
	Chitradurga	Bidar	Bijapur	Hassan
	Shimoga	Rajchur	Dharwad	Mandya
	Tumkur			D. Kannada

SECTION IV: INTERVENTIONS FOR CHILD SURVIVAL

The strategies for child survival are listed under the following components:

1. Newborn care
2. Universal Immunization
3. Vitamin A prophylaxis
4. Management of acute respiratory infections
5. Control of diarrhoeal diseases

1. NEWBORN CARE

Goal : Improve Survival of Newborns

Strategy: Institute improved care of newborns at home level

The following strategies will be implemented in districts:

(a) Through the anaemia control programme in pregnant women, advice for rest, supplementary nutrition in ICDS blocks and appropriate nutrition education for mothers, the proportion of low birth weight babies will be decreased.

(b) The traditional birth attendants will be trained to identify low birth weight babies using colour-coded balances, and to advice mothers on management of low birth weight babies at home and appropriate referral.

(c) Every health worker will be encouraged to identify low birth weight babies with colour-codes scales wherever they conduct the deliveries. Suitable advice on home management and referral will be given by them. These babies will receive priority attention during the home visits of female health workers.

(d) Mothers will be oriented on the proper management of low birth weight babies with particular reference to feeding and warmth, as well as the need for special care and referral.

(e) The UIP Plus training for medical officers and para medical workers will include newborn care.

(f) Promotion of exclusive breast feeding in all infants for the first 4 to 6 months, colostrum, and feeding during illness will be emphasised.

(g) Measures will be taken to change hospital practices to ensure rooming in and maternal counsel.

2. UNIVERSAL IMMUNIZATION

Goal: **To cover all pregnant women against tetanus and all infants every year against six vaccine preventable diseases.**

Coverage: **Universal coverage (near 100%) of all pregnant women with at least 2 doses of tetanus toxiod and all infants with the necessary doses of BCG, OPV, DPT and Measles.**

Immunization will be provided against measles, neonatal tetanus, poliomyelitis, diphtheria, pertussis and childhood tuberculosis. The following strategies will be used for immunization service delivery.

(i) The "fixed day" will be the main strategy. For population groups upto 1000 and beyond, a fixed day (the immunization session, which will now be the mother-child protection session) will be scheduled at least once every month. Every sub-centre and primary health centre will organise an immunization session per month. Medical institutions at district and state levels may provide immunization services more frequently. In villages with small population, immunization sessions will be held at least 4 times a year.

(ii) "Catch-up" sessions will be organised every year in areas with low immunization coverage in (say, less than 70%) based on quarterly assessment. These rounds should preferably be organised over October-November-December. The "catch-up rounds" are not a substitute for the fixed day strategy nor for regular services but is a complementary approach to achieve high immunization coverage.

(iii) All antigens will be provided in every immunization session.

(iv) Private practitioners will be systematically involved specifically in urban areas. These "fixed centres" will be made widely known to people, indicating the date

and time of the immunization session. They will be supplied with vaccines and immunization cards, and information regarding beneficiaries collected from them.

(v) Complete enumeration of all infants and pregnant women will be part of a programme service delivery. This is essential if the programme is to be universal. Enumeration at village level will be done annually and updated every quarter.

(a) Polio Eradication

Goal: **No cases of poliomyelitis in 10 districts by 1995 and eradication of Poliomyelitis in all districts including urban areas by the year 2000**

Coverage: **Universal Coverage (nearly 100%) of all infants with 3 doses of OPV and "O" dose of OPV at birth wherever possible; as well as universal coverage of under-twos with booster dose. The district or a urban unit above 1,000,000 population will be considered as the geographic sub-unit for declaring an area free of polio.**

Three doses of oral polio vaccine will be given during infancy; wherever hospital deliveries take place, "O" dose of OPV will be given at birth. In addition, one booster dose of OPV will be given at 16 months.

The plan for polio eradication is based on two classification of districts, those with OPV3 coverage (a) 80% or greater and (b) those with less than 80% coverage (actual coverage):

a) For districts with 80% or greater coverage:

1. Immediate implementation of increased surveillance for suspected polio (Case definition-suspected polio is any case of acute flaccid paralysis including Guillan Barre syndrome) in a child less than 15 years of age.

2. One case of polio in these districts is defined to be an outbreak of polio.

3. Investigate all reported polio cases:

   - Physical examination by an experienced medical officer
   - Stool specimens for viral culture.
   - Follow-up examination at 60 days.,
   - Increased local surveillance for other polio cases.

4. For cases meeting case definition, outbreak response (containment immunization).

- 2,000 to 3,00 children in urban areas, within 5 kms in low density rural areas.
- a dose of OPV to all children less than 3 years regardless of immunization status.
- Two rounds 1 month apart
- To be completed within 1 week of onset of paralysis.
- No outbreak vaccination if investigation more than one month from onset of paralysis of last case.

5. Mopping up:

- Vaccination in blocks or PHCs (about 10,000 children with polio cases reported in last year. (May be expanded to 2 or 3 years as polio cases decrease). Blocks based on mapping up of cases.
- For each round, 1 dose of OPV to all children less than 3 years regardless of vaccination status.
- Two rounds conducted one month apart.

(b) For districts with less than 80% coverage:

1. Increased routine immunization efforts to achieve 80% coverage
2. Special immunization activities (such as catch-up rounds) needed to increase coverage.
3. Outbreak control as appropriate based on epidemiological investigation

(c) Select Operational aspects:

1. Mop-up rounds:

Mop-up rounds need to be implemented to replace the wild polio virus with the vaccine virus. The should be implemented before the epidemic season (generally June to August in India, and sometimes in May), when transmission is lowest. Therefore, two mop-up rounds should be organised ideally during March and April.

India implemented the immunization programme through the primary health care system, which will facilitate sustaining the immunization programme. This achievement must continue, and mop-up rounds should not interrupt regular service delivery. Therefore, every effort should be made to implement mop-up rounds on the day immunization sessions are held (now mother-child protection sessions). That means, the health workers will complete the primary immunization of all those children under 1- year of age first. Thereafter, children below 3 years of age would be immunized with OPV.

The OPV given during mop-up rounds should not be entered in the immunization card, unless it is part of the primary immunization that is due for an infant on that day. The worker is expected to submit a statement on the total number of children below 3-years of age who have been given OPV (as a proportion of estimated number of children below 3-years in that area) and does not need to identify these children by name or address.

Mop-up rounds are not implemented for enhancing individual protection they are implemented to replace the wild virus. therefore, it does not matter if a few children are left out, or few children over 3 years of age are included. house-to-house listing of children below 3 for mop-up rounds is not recommended since this is not the best use of the health workers time who has to perform numerous activities. Instead, it is advisable that all children below 3 years be brought to the immunization session through a village based social mobilization and communication initiative. With great effort, the primary immunization is being given to children below 1 year of age. Even now, children over on are being given primary immunization. Every effort must be made to ensure that this practice is continued. It is felt that listing children below 3-years may communicate the wrong message to workers, suggesting that now children may be immunized upto 3 years.

2. Improving surveillance

Presently, data on disease trends are being collected through sentinel sites located at state and district hospitals. The information from villages, sub-centres, primary health centres and community health centres, reflecting the situation in

communities, needs to be strengthened. Timely response is a priority. In the programme, all out-break containment measures will be taken for every case of poliomyelitis within one week. Therefore, every effort will be made to strengthen the surveillance system through the routine monthiy reports from both sentinel centres as well as the primary health care system.

In the chiid survival and safe motherhood project, village level functionaries as well as communities will be expected to report all cases of suspected poliomyelitis to the health worker within 24 hours. Building this system will not be easy, but if a beginning is not made now, it will not be possible to implement the polio eradication programme within the time-frame.

After the health worker at sub-centre level is informed, information on suspected poliomyelitis cases must reach the medical officers at the primary health centres within the next 24 hours. The health worker is not expected to leave the sub-centre headquarters and go to the primary health centre, because this will disrupt the provision of regular services in the community. A nodal person(s) should be identified and briefed from the community, so that people are fully involved in the process. Contingency funds will be available with the medical officer at the primary health centre to pay for the actual bus fare to and fro. No incentive money or remuneration will be give for this gesture from the community.

The Medical Officer at primary health centre must respond to the information within 48 hours, and investigate the reported poliomyelitis case(s). If require, containment measures must be taken within one week of the first report.

Information on the timeliness of the reporting will be maintained along with the line listing of cases.

The line list will include information on name, father's (mother's) name, age at onset of paralysis (in months), sex, complete postal address (for home visits got check for residual paralysis), extent of analysis, outcome, immunization status (by number of OPV doses received prior to onset of symptoms), date of admission and hospital registration number.

Dates on which samples were collected for virus isolation will be mentioned by the hospital, if these were collected. The date of the last dose of OPV received will also be mentioned.

POLIO SURVEILLANCE

- O Nil reporting
- O Active surveillance
- O Line listing of cases
- O Follow-up
  - * Search for more cases in area
  - * Additional doses of OPV to children under 3 years in the area
  - * Confirmation of residential status
  - * Confirmation of immunization status
  - * Confirmation of paralysis, after 60 days
- O Identification of 'low-risk' cases
  - * Screening of case records
  - * Assessment of clinical status by team
- O Spot-mapping by residential status for identification of 'high–risk' pockets
- O Polio virus isolation from faecal samples

The district health office will maintain records of follow-up activities for each reported cases by dates when these were done and the number of doses of OPV administered in the area for containment of the infection.

Record will be maintained on the clinical status of each case 60 days after onset of paralysis.

If additional cases were found in the area of active search, these must be added to the line list at district level.

2. (b) **Neo-natal Tetanus Elimination**

Goal: Neo-natal tetanus will be eliminated by the year 1995.

Coverage: Universal coverage (near 100%) of all pregnant women with 2 doses of tetanus toxoid or booster; ante-natal care for all pregnant women; and 85% of deliveries conducted by trained birth attendants by 1995.

The following strategies will be implemented:

- 100% of pregnant women with 2 doses of tetanus toxoid (or booster)
- Promotion of safe delivery at home and correct medical practices for safe delivery at hospital and in health centres.
- Training traditional birth attendants in appropriate care for safe delivery and aseptic techniques.
- Community-based surveillance of all neonatal deaths so as to know the correct picture of neo-natal tetanus deaths.
- Recording current tetanus immunization, with a view to promoting a five-dose tetanus immunization schedule for all, specially pregnant women.

2. (c) **Measles Reduction**

Goal: Measles deaths reduced by 95% and cases reduced by 90% by the year 1995.

Coverage: Universal coverage (near 100%) of all infants with measles vaccine at 9 months of age

The strategies for reducing measles cases and deaths will be as follows:

- Near 100% coverage of infants between 9-12 months with measles vaccine.

- Good case management at home level, and to educate mothers about complications that may arise, in particular, pneumonia and diarrhoea. Health workers and medical practitioners need to be very conscious of the post-measles complications that are the major cause of death in babies. They will educate families about necessary care.

- Community-based surveillance for recording cases.

- Management of epidemics:

  a) In districts with less than 90% measles vaccine coverage, epidemics need to be investigated primarily to study the deficiencies in the implementation of the immunization programme. No containment measures are necessary.

3. Control of Vitamin A Deficiency

Goal: **Virtual elimination of Blindness and other consequences of vitamin A deficiency**

Coverage: **Universal coverage (near 100%) of children 9 months to 3years with 5 mega doses of vitamin A.**

The following strategies will be used:

- **Prophylaxis** with vitamin A will be provided as per the following schedule:
- at 9 months: 100,000 IU along with measles immunization
- at 16 months: 200,000 IU along with booster dose of OPV/DPT
- at 24 months) Children will be brought to the immunization
- at 30 months) session; these doses may also be given through
- at 36 months) the ICDS workers in co-ordination with health workders.

- In case of manifestation of vitamin A deficiency, two mega doses (200,000 IU of vitamin A) need to be given with an interval of one month.
- Dietary advice will be part of the communication and training component.

4. Management of Acute Respiratory Infections

Goal: **Deaths due to pneumonia in children under 5 reduced by 10% by 1995 and 40% by 2000 AD.**

Coverage: **Universal coverage of pneumonia with cotrimoxazole; prevention of a proportion of cases through measles immunization and vitamin A prophylaxis.**

The mainstay of the ARI control programme is early diagnosis and standard case management of pneumonia, and home care for coughs and colds. Appropriate antibiotic drugs will be made available at sub-centres, primary health centres and in all out-patient departments of peripheral hospitals. Irrational use of antibiotics will be discouraged through proper training of personnel.

The main components of control of pneumonia and ARI in the "UIP Plus Package" are:

- Home care for coughs and cold.
- Administration of anti-microbial by para medicals in children at sub-centres, primary health centres and outpatient departments of hospitals.
- Referral of severe cases to hospitals.
- Equipping community health centres and district/tahsil hospitals with oxygen and equipment to deal with acute cases.
- Promotion of immunization to cover all eligible children.
- Training of staff including doctors and para medical workers.
- Training and orientation of mothers and families by interpersonal and mass media, respectively, for correct case management at home level and timely referral.

Educational activities will include promotion of smokeless chullahs.

5. Diarrhoea Management

Goal: **Deaths due to diarrhoeal disease reduced by 30% by 1995 and 70% by the year 2000.**

Coverage: **Improve use of ORT plus feeding rate to 50% by 1995 and 80% by 2000 A.D.**

Improve access to ORS by making available ORS in every village/urban slum by 1995 access to ORS to be improved to 80% of the population by 1995 and 100% by 2000 A.D.

Improve maternal knowledge on home case management from existing level to 80% by 1995 and 100% by 2000 A.D.

Improve access to case management at health facilities or providers from existing level to 80% by 1995 and 95% by 2000 A.D.

The major strategies for controlling deaths due to diarrhoeal diseases will be as follow:

(1) Increased use of home fluids and ORS at home level, plus continued feeding.

Cases of diarrhoea will receive ORS or recommended home available fluids (total volume of fluid increased) and continued feeding. The inclusion of feeding allows a wider range of home-available fluids to be recommended. Foods plus a plain fluid may be more feasible to recommend than home fluids made from special recipes. In measuring this indicator, "recommended home fluids" includes water, breast milk and any other fluids except those which should not be used at all (e.g. sweet fluids such as soft drinks, or extremely salty fluids. etc.) In addition, it may also help reduce the number of cases of persistent diarrhoea, a condition far more life threatening than acute watery diarrhoea and for which treatment is more difficult.

This intervention will be measured by estimating the proportion of diarrhoea cases receiving an increased total volume of fluids (ORS and continued feeding) to the total number of diarrhoea cases occurring among children under 5 years of age.

The coverage evaluation survey will measure separately the ORT use rate and the continued feeding rate. Based on the data collected, the above indicator can be calculated which will provide information at state level (collated from district surveys). In addition, this indicator will be measured through household surveys that will be conducted 3 times over this decade.

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(2) Improved maternal knowledge

The use of home available fluids and ORS, coupled with continued feeding during diarrhoea, is the basis of the diarrhoeal disease control programme. The 3 rules of home management include increased fluid intake, continued feeding at family level and appropriate referral when needed. Mothers meetings will be organized to teach them at village level. Traditional birth attendants in a village will be encouraged to join the mothers' groups. This activity was initiated during the 7th Five Year Plan and will be strengthened considerably in this programme. Mothers groups' will be oriented primarily through the health workers and other development functionaries from programmes such as Integrated Child Development Services (ICDS), Development of Women and children in Rural Areas (DWCRA) and Urban Basic Services (UBS). Wherever available Non Government Organisations (NGO) will be involved.

This intervention will be measured by calculating the proportion of mothers of children less than five years old who can state the three rules of home management (fluids, feeding, care-seeking) to all mothers of children less than five years old. The extent of the usage of this indicator will be ascertained through household surveys that will be conducted three times over this decade (as mentioned above).

(3) Increasing asscessibility of ORS through (a) government channels and (b) private sector

Social Marketing: A massive effort will be launched to increase the availability of ORS in both the public and private sectors. The approach of the National Malaria Eradication Programme in the 1970's, whereby the demand for adequate supply of chloroquine was dramatically increased throughout the country, has been adopted as a model. As part of this effort, every village had an outlet for chloroquine tablets, a massive communication campaign was launched on television encouraging every one with fever to use chloroquine; and workers as well as medical officers were trained. A similar strategy will be implemented for ORS.

To achieve maximum accessibility or ORS, the following interventions will be implemented:

- Every village/urban slum will have at least one outlet for making ORS available round the clock. Anganwadi workers, action shops, grocer's shops, health guides, traditional birth attendants, or others will be identified and oriented to provide ORS to villagers. This unit, which will make ORS available round the clock, will be defined as an ORS depot. Wherever feasible, this depot will also have a supply of conventional contraceptives, as well as chloroquine in malaria endemic areas. Depot holders will be allowed to retain a token amount of money per ORS packet distributed.

- Every government health facility will provide ORS; all health workers will be given adequate quantities of ORS as part of their regular supplies.

- A communication campaign will be launched to generate demand for ORS and to make oral rehydration thereby as well as continued feeding a family habit.

- Non-governmental organizations with proven capacity and fairly large infrastructure will be involved for social marketing or ORS. Several proposals have been received by the Government of India and are being examined. The objectives of these initiatives are: (i) creating awareness amongst service provides and mothers regarding oral rehydration therapy (including continued feeding) through educational campaign and (ii) making ORS packets widely available through their infrastructure to meet the increasing demand. These proposals have been formulated with a view to make the project self sustainable in a period of 4-6 years. This means that these social marketing projects would become self sufficient and because of "built-in" profit, would be carried on by the agencies on their own.

ORS access rates will be measured. The population with a regular supply of ORS available in their community (including commercial/non-commercial and health facility/non-health facility sources of supply). This indicators to be stuided include: (i) proportion of population with a regular supply of ORS available in their community to the total population in the community, which will be generated through the household surveys mentioned before; (ii) proportion of cases of diarrhoeal episodes with access to ORS packets within the village and from health facility and this will be generated through the coverage evaluation surveys which are being conducted as part of this integrated programme for child survival and safe motherhood; and (iii) ORS depot rate indicating the proportion of villages with a functioning ORS depot holder in the village.

SECTION V: INTERVENTIONS FOR SAFE MOTHERHOOD

1. Management of Anaemia

Goal: Reduction of iron deficiency anaemia in pregnant women

Coverage: Universal coverage (near 100%) of pregnant women with iron and folic acid.

The anaemia control programme in this package will focus primarily on the pregnant women to reduce anaemia and thereby maternal mortality as well as to improve birth weight of babies. Every effort will be made to cover all pregnant women. The maximal impact of iron and folic acid supplementation is seen if all pregnant women are reached. Specifically, the interventions are as follows:

Pregnant Women:

- All pregnant women will be given 2 tablets of iron and folic acid (60 mg tablets) for 100 days or 1 tablet or iron and folic acid of 100 mg.
- All pregnant women will be clinically examined for anaemia in the immunization session.
- Those found to be mildly or moderately anaemic will be recommended 3 tablets of iron and folic acid of 60 mg or 2 tablets of iron/folic acid of 100 mg for 100 days.
- Women severely anaemic (estimated to have hemoglobin levels of less then 6 mgs.) will be referred to medical officers at primary health centres.
- Women with a history of worm infestation will be dewormed.
- Dietary advice for consumption of adequate quantities of iron- rich foods will be given.

– Iron and folic acid (IFA) tablets will be given during the immunization session, now to be the mother-child protection session. Whether ICDS workers are available, this may be provided through them with the co-ordinaion of the health worker.

2. Birth-spacing and Timing

Goal: **To increase the proportion of births spaced three years apart from existing levels to 30% by 1995 and 60% by 2000 AD; to decrease the proportion of births in women below 20 years from the existing level to less than 10% in 1995 and 2% in 2000 AD.**

Coverage:

1. **Access to all couples to information and services for spacing and timing births from the existing level of 35% to 75% in 1995 and 100% by 2000 AD.**

2. **To increase the effective couple protection rate from the existing level of 46% in 1990 to 55% by 1995 and 65% by 200 AD.**

The following strategies will be used.

– A massive communication campaign will be launched to provide information on the benefits of birth spacing and timing. Birth spacing will be positioned as a health measure for people rather than a demographic measure.

– The training of medical and para medical personnel will include technical aspects of contraception as well as the appropriate communication to people required for this programme.

– A variety of contraceptives will be offered. Special efforts will be made to promote IUDs and oral contraceptives.

– Emphasis will be given to the availability of contraceptives. Supplies will be available in every immunization session as well as the during the home visits of health workers. In addition, all health facilities will have contraceptives available. Condoms should be available in every village at all times.

– Appropriate education will be given to adolescent girls and boys in schools and colleges.

- The protection offered by the use of condoms against AIDS will be highlighted.
- Innovative ways for family life education will be designed for adolescents who are not in school.
- Functional literacy programmes as well as the ICDS, UBS and DWCRA programmes will include appropriate information.
- Coverage evaluation surveys will include information on birth spacing and timing so as to provide a system of tracking progress in this programme.

3. Reduction of Maternal Mortality

Goal: **Reduction of maternal mortality from the existing level of 400 per 100,000 live births to 300 in 1995 and 200 in 2000 AD.**

Coverage:

1. **Provide services for (a) essential obstetric care (including antenatal services for all pregnant mothers) at village level by 1995 and for (b) emergency obstetric care at first level referral, with one unit for 485,000 population by 1995 and one unit per 249,500 population by 2000 AD.**
2. **Access by all couples to information and services for child spacing; effective couple protection rate increased (described already).**
3. **Cover all pregnant women with two doses of tetanus toxoid/booster (described already).**
4. **Cover all pregnant women with two tablets of iron folic acid for 100 days and 3 tablets if anaemic (described already).**

In order to address the obstetric needs of women and reduce maternal mortality, two major strategies will be used in the safe motherhood programme.

(a) Through the UIP Plus package, services for immunization with tetanus toxiod, prophylaxis and treatment for anaemia, services for birth spacing and timing, management of sepsis and toxemia will be provided at (i) village (ii) sub-centre and (iii) primary health centre levels.

(b) First level referral services will be organized to deal with obstetric emergencies, specifically bleeding and obstructed labour. State governments will generate resources to equip the hospitals to serve as first level referral units. Community health centres (corresponding to mandal PHCs) and district/tahsil hospitals will be strengthened (after an inventory of facilities and equipment available) so as to ensure that there is one facility to deal with obstetric emergencies for every 500,000 population. Such facilities should also be equipped to provide special neo-natal care.

(c) Transportation for emergencies in rural areas is a problem. Wherever ambulance services are not available, arrangements through non-governmental and private agencies may be explored to provide transport at reasonable cost. Communities will be encouraged through appropriate education to organise emergency transportation. Innovative schemes for reimbursement of transport costs may be tried out in select blocks.

(d) Wherever dharamashalas are available, priority will be given to high-risk pregnant women who have been referred, and are waiting for admission to hospitals so that timely attention can be given to her.

The safe motherhood programme has three major components:

E - Essential Care for all pregnant women

E - Early detection of complications

E - Emergency care

Safe motherhood services may briefly be defined as follows:

E Essential Care for All

* Anaemia management
* Rest
* Immunization
* Care at birth - "5 Cleans"
  - o clean hands

- o clean environment
- o clean cord care
- o clean razor blade
- o clean applicant, if any

* Early registration
* Checkup - three times for early detection of complication
* Communication and support for birth spacing and timing

E **Early detection of complications**

Test	Complications
* Blod pressure examination	Hypertensive disorders of pregnancy
* Weight gain (10 kg gained per pregnancy, not more than 5 kg in any interval of one month)	Toxemia
* Clinical examination Anaemia	– Anaemia
* Bleeding	– Post partum hemorrhage – Ante-partum hemorrhage
* Fever after delivery	– Sepsis

E **Emergency Services at first level referral (described later)**

Care will be provided for pregnant women as follows:

(i) **Care for obstetric complications**

Sepsis:

– immediately after recognition of fever, appropriate antibiotics will be given by the health worker and the patient referred.

Induced abortions performed unhygienic conditions are largely responsible for sepsis; communities will be informed of the availability of proper services for MTP, and the right of women to avail these services.

Hypertensive disorders of pregnancy

- Early detection is important. All female health workers will be trained to measure blood pressure which is an early sign and be given a blood pressure instrument. Urine examinations will be done where possible. Where possible, mothers will be weighed regularly.
- Advice on salt-restricted diet and rest will be given.
- Women will be referred to hospitals for appropriate maternal and foetal monitoring as well as treatment.

Obstructed labour

- Health personnel will be trained to recognize and immediately refer cases at risk to first level referral units.

Bleeding

- Anaemia is the major contributing cause; a programme for anaemia control has been described before.
- Routine prophylactic ergometrine tablets (3 tablets per day for 3 days) may be given by all attending deliveries; they need to be adequately trained and given enough supplies.
- Injection ergometrine as first aid measure for postpartum hemorrhage must be given by all female health workers; this should be available also in all sub-centres and primary health centres.
- Mothers will die within two hours during postpartum hemorrhage and within 12 hours during ante-partum hemorrhave; therefore, blood transfusion services and trained personnel must be available at first level referral centres where the patient must be referred immediately.

(ii) **Ante-natal care**

Ante-natal care must provide a minimum level of services by the female health worker, which include at least:

- early registration
- assessment of general health and nutritional status
- 2 doses of tetanus toxoid/booster
- 2 tablets of iron-folic acid per day for 100 days: or
- 3 tablets of iron-folic acid per day for 100 days if anaemic.
- past obstetric history
- foetal growth assessment
- blood pressure assessment
- detection of complication of pregnancy and abnormal presentation
- routine de-worming of pregnant women with mebendazole
- rest be advocated
- every pregnant women should have atleast 3 ante-natal consultations (i) at 20 weeks (ii) 32 weeks and (iii) at 36 weeks.

(iii) **Intra-natal care**

home level - for normal deliveries

- A communication effort will be made to promote clean deliveries at home-level through TBAs and all birth attendants.
- TBAs need refresher courses and continued supervision for conducting safe delivery at home.
- TBAs be given disposable delivery kits which contain soap, plastic sheet, cotton/gauze pads, thread/ligature, new razor blade, savalon solution.
- Increasingly, institutional deliveries must be encouraged in select areas.

institutions for high-risk deliveries

– first level referral centres must perform the following functions:

1. Surgical functions
2. Anesthetic functions
3. Medical treatment functions
4. Blood replacement
5. Manual/assessment functions
6. Family pianning support functions
7. Management of women at high risk
8. Neo-natal special care

SECTION VI: SYSTEMS SUPPORT

PLANNING

District will be the unit for implementing the child survival and safe motherhood programme.

District plans will be developed in accordance with the training module "Plan and implement MCH services". Goals and coverage objectives will be defined for every district. The district plans will include differential strategies to reach villages, sub- centres and primary health centres which are in difficult areas and terrain. All urban units within the district will be included as part of the district plan of operations for the programme.

Each plan will be developed for the entire programme cycle and will schedule the following activities for every village, sub- centre area and primary health centre:

- MCH/immunization sessions (fixed day strategy)
- home visits to priority households
- mother's meetings in every village in co-ordination with ICDS in ICDS blocks
- enumeration, with quarterly update
- sector, block and district level meeting
- ORS depots in every village
- mop-up rounds in March and April
- social mobilization at village level
- maintenance of equipment at sub-centre, PHC and CHC levels

Health care delivery will be organized as described below. Only tasks related to the child survival and safe motherhood programme are listed - others will continue as before:

i) Village

Depot holders to distribute Nirodh, ORS, to the community; the depot holders should preferably be the TBA; if suitable TBA not found, VHG, Anganwadi Workers, Mahila mandals/Mahila Swasthya Sangh members may be identified for the task.

Enhance skills of TBA, through her involvement in mothers' meetings and training where possible.

Monthly MCH/immunization session: Fixed Day and fixed place strategy to be continued; ensure supply of IFA and Vitamin A solution. To be organized in Anganwadi centre whenever possible.

Home visits by the health worker - once a months in every village

- Contact TBA in the village
- Identify and check up pregnant women
- Visit priority homes where there is low-birth weight baby, a new acceptor of IUD/oral pill; an infant not turned up for MCH/immunization session, a child with adverse reactions to immunization, a neonatal, maternal or child death, a recent case of poliomyelitis, a case referred to PHC/CHC/Hospital by MPHW(F), a person acutely or seriously ill.
- Post natal care
- Motivate pregnant women to come for immunization session.
- Identify other problems (diarrhoea for child under 5, pneumonia etc.) and give proper treatment and advice.
- Identify complications during pregnancy for timely referral to first level referral centre.

ii) **Routine of ANM**

SAMPLE MONTHLY WORK PLAN

Week	Monday	Tuesday**	Wednesday	Thursday	Friday*	Saturday
First	Home Visit Village 1	EP services	SC (MCH) Clinic	*Immun. Session Village 3	Home Visit Village 5	Mothers' meeting
Second	Home Visit Village 2	FP	SC (MCH) Immun. Clinic	*Immun. Session Village 4	Immun. Session in hamlet (s) left out	Sector meeting
Third	Home Vusut Village 3	FP	SC (MCH) Clinic	*Immun. Session Village 1	Home Visit to hamlets	Open
Fourth	Home Visit Village 4	FP	SC (MCH) Clinic	*Immun. Session Village 2	Immun. Session Village 5	Sector Meeting (ICDS)
Fifth	For missed work o9n any day of above day due to leave or holiday and meetings					

* Fixed immunization day as per guidelines-not to be changed, wide publicity to be given.

** Can be changed to another day e.g. if a fixed family planning camp is held at your PHC on every Friday then change Tuesday with Friday and vice versa.

Open means - District to indicate activities like mothers meetings/sectoral meetings, etc.

Use one day of the week to organise home visits, immunization sessions etc. for additional villages/hamlets with population about 500 by rotation.

iii) **New PHC (sector)**

MO to visit every sub-centre once a month (preferably on a clinic day) and use a checklist for supervision and use record relevant findings.

Sector to supply vaccines; if no storage facilities, the sector MO should procure from PHC.

Every sector to function as a sub-centre for HQ area. One immunization session a month will be conducted at the sector.

MO to conduct surveillance and contain disease outbreaks.

MO to conduct sector meetings and monitor various activities.

iv) **PHC (Block)**

Training of paramedical workers, supervisors as a part of the continuing education programme along with the monthly meeting

Receive and supply medicines, vaccines and IEC materials.

Manage all programmes, implement, monitor and evaluate activities in the block scheduling works of individual workers/supervisors and doctors. Solve problems that may be identified.

Coordinate with ICDS programme

Weekly immunization sessions at PHC Headquarters

MO of PHC to visit every sector and one sub-centre of the sector every month

Supervise maintenance of ILR/Deep Freezer, Voltage stabilizer and other equipment and get them repaired immediately when they go out of order.

Supervision to be supportive and for problem solving.

Monitor number of immunization sessions held against those planned

v) **District Headquarters**

Training of MOs and paramedical workers

Receive stores and issue (inventory management)

Analyse data to identify weak areas and solve problems.

Establish and monitor referral services.

Co-ordinate with other sectors and NGOs

District plan with detailed scheduling of activities at all level with special communication of immunization date, venue, home visit and number of clinics to be made.

Every district plan will have the following information:

(i) Background information (brief)

- demographic profile (from existing data)
- disease pattern (from existing data; information to be collected through routine systems and modified coverage evaluation survey)
- available information on social economic parameters
- coverage with existing services such as immunization, vitamin A prophylaxis in children, IFA in pregnant women
- information on health programmes

(ii) District resource inventory

- health institutions
- training facilities
- communication resources
- private practitioners
- cold chain equipment and mechanics for their repair
- voluntary agencies

(iii) Goals and objectives

- mortality reduction in mothers, infants and children 1-4 years
- eradication of polio
- elimination of neonatal tetanus
- reduction in cases and deaths due to measles
- reduction in deaths due to diarrhoeal dehydration
- reduction in deaths due to pneumonia
- coverage with immunization, vitamin A, iron-folic acit, contraception, antenantal care
- establishment of first level referral services

(iv) Programme interventions

– for child survival

– safe motherhood

(v) Operational strategies (detailed)

(vi) systems support

– training and training plan

– communication and communication plan

– management information system and feedback

– plan for social mobilization

– supplies and materials management including maintenance

– inter-sectoral linkages

– financing

– schedule of review meetings

– district-level activity plan and calendar

– schedule of field visits at every level

– financial allocations to PHCs/Sub-centres and exp.statements

(vii) Schedule with days/dates and place for every village and health facility

– MCH/immunizations sessions

– Home visits

– MCH clinics at the sub-centres

– Mothers' meetings

The major functions at state level will include

– providing leadership and technical support to districts

– training - scheduling and monitoring

– financial management with particular reference to timely release and allocation of budget

- quarterly review
- monitoring
- evaluation
- providing full support to districts as they phase into the programme
- facilitate district planning in every district
- monitoring supplies and their maintainance in the field
- spare parts management and major repairs of health equipment
- utilizing funds and resources available towards the goals of child survival and safe motherhood
- involving medical colleges, particularly in training, tertiary care, survery and research
- inter-sectoral coordination
- intra-sectoral coordination

MONITORING

Three important activities need to be monitored:

i) Number of MCH/immunization sessions organised out of those scheduled.

ii) Number of home visits conducted by the health workers as well as the number of villages in which the health worker has conducted the mothers' meetings.

iii) Surveillance data-routine reports including the PHC reports at the district level and the sub-centre area wise reports from community based surveillance at the PHC level; the sentinel surveillance reports from district and first referral level hospitals.

In addition, special emphasis will be given on the monitoring of the following:

i) Supplies for the sub-centre level i.e. the sub-centre drug kits and the use of the sub-centre equipment

ii) no. of villages with a functional depot for ORS packets, the birth-spacing and timing items such as condoms

iii) no. of low birth weight babies born at the village level and the home care given to them

Indicators for review include all items listed under the goals given in sector II, which includes information on antenatal care, registration, immunization coverage, coverage with iron-folic acid tablets, number of complicated cases referred and what happened, proportion of deliveries conducted by trained attendants, deaths in mothers, infants and young children.

Specifically, information needs will be analyzed (or collected where not available) on the following:

- infant mortality
- age-specific mortality in children 1-4 years of age
- maternal mortality
- immunization coverage
- number of cases of polio
- area-specific OPV coverage with TT2/booster
- cases of measles

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- deaths due to diarrhoeal dehydration
- cases of diarrhoea
- deaths due to pneumonia
- cases of pneumonia
- coverage with iron and folic acid
- proportion of deliveries by trained birth attendants
- proportion of pregnant women receiving antenatal care
- quality of care and functions at first level referral services
- contraceptive practice - effective couple protection rates
- coverage with vitamin A in children below 3 years
- proportion of fixed days scheduled and held; if not held why not;
- home visits made by health workers, (number per year per village), where TBAs and anganwadi workers are included as part of the village based resource for health care.
- proportion of villages which carried out enumeration in the year in every block
- number of villages with ORS/IFA depots established per block
- number of villages with ORS/IFA depots functioning every month
- number of villages per block that reported
    a) births
    b) deaths
    c) neonatal deaths during the month
- number of review meetings held in the block and district

SUPERVISION

District	By State Program Officers - once a quarter.
PHCs	District Program Officers - once in a month
	By DMHOs
Sub-Centres	MOs PHCs - once in a month at least
	MPHS (M) - once in a week
	MPHS (F) - once in a week
	MPHEO - twice in a month

(1) State Program Officers will inspect 3-4 Districts to overview all programs in addition to their own programs in the state.

(2) The PHCs in the district will be divided among the program officers to overview the National Health Programs in addition to their own program in the entire district.

TRAINING

Training will be an integral component of the project for Child Survival and Safe Motherhood. The strategy used for the immunization program will be applied in this project also. At national level, the Ministry of Health and Family Welfare will be responsible for initiating and coordination of all training activities for the project. Similarly, at state-level, the Directorate of Health and Family Welfare will be responsible for initiating and coordinating all training activities.

The immunization program had several positive features. Firstly, there was a close link between the training process and service delivery. This was achieved by the formation of functionally effective national and district (including officers from state level) level "core" training teams, where select people were included as "trainers". Secondly, training was conducted at 3 levels only -- the centre, district and the block. This ensured that there was minimal distortion of the contents. And, thirdly, a set of appropriate training materials was available. The contents of these training materials focussed entirely on the specific activities that had to be carried out at each level. The integrated training package for child survival and safe motherhood will also adopt a similar strategy.

Over the past two years training for immunization and ORT programs was conducted together. However, integration in terms of contents and program issues is yet to take place. A set of training modules for the intensified Dai's training program has been developed. Similarly, for the pilot program on control of Acute Respiratory Infections also, a set of training modules have been developed. Also a set of modules for the immunization program was used for training over the last 5 years. However, because of the independent process of development of these modules, certain overlaps and inconsistencies particularly in terms of planning and the MIS requirements have occurred. In order to overcome these and to remodel the entire training strategy based on the beneficiaries in focus rather than the program/intervention alone, it is necessary to develop integrated training modules, particularly preventive care aspects, with a strong bias on management aspects particularly for field level functionaries. For the immunization program, this was the approach and has been found to be effective.

Training alone cannot bring about the changes required for skill development and attitudinal shifts. Commensurate decisions to support the functioning of the health worker is considered integral to effective outcome of the training programs. The curriculum would be decided to

provide as much as 'hands-on' training as possible. For example, various aspects of the cold chain, conducting coverage evaluation surveys will be essential subject training. This will be followed by appropriate supervision. Detailed supervisory guidelines will be developed as a distinct activity of this program.

The training network will be improved with reference to training technologies, within a framework of well defined set of primary health care interventions. National/regional level institutions will organise training for senior managers. The course outline will be designed by the Ministry of Health and Family Welfare, and the training programs will draw upon the best experts in the country for each subject area. Training for voluntary and non- governmental organizations will be supported with the objective of extending the outreach of services.

Every effort will be made to involve local training resources and institutions that may have been set up under different projects as well as non-governmental organizations. However, the decision for training and training resources to be used will lie with the state governments and district level authorities. It is recognized that select medical officers may have to be provided special training in obstetric emergencies, child banking, laboratory and support services at first level referral.

The project provides for this need. This will be sent to centres of excellence both within the country and outside whenever required.

It is important to orient senior policy makers to this project and the various activities as a critical step for generating commitment and support, as well as mobilising partners for this program.

The various courses for training under the child survival and safe motherhood program include the following:

(a) orientation of senior (national and state level) health administrators and decision-makers;

(b) in-service training for:

- trainers through the development of national and district/state level core training team;
- senior managers (district level medical officers; district level nursing and media officers)

- mid-level managers (medical officers of PHCs, CHCs and district level para-medical officers), and
- field level para-medical staff
- village level functionaries from various development sectors (such as anganwadi workers, health guides, etc.)

(c) special skills will be developed for the following areas:

- cold chain management
- ILR users
- refrigeration
- stores management
- management of walk-in-coolers
- logistics training
- health equipment and transport maintenance
- statistical aspects and management information systems
- surveillance
- institutional case management training to nursing staff
- IMA/private medical practitioners
- drivers of UIP vehicles

(d) special skills at first level referral centres:

- obstetric emergencies
- child care (newborn care, ARI, control of diarrhoeal diseases)
- anaesthesia
- blood banking services and
- laboratory services
- management for effective referral services

The training materials will consist of :

- senior/mid-level managers training modules (set of 6 modules);
- para-medical health workers manual;
- reference materials for special courses for skills at first level referral centres.

The quality of training is an important issue, and a system will be set-up to ensure this. Training activities will be monitored by the Ministry of Health & Family Welfare, with the help of National Core Training Team.

GUIDING PRINCIPLES FOR TRAINING

- The training will address 2 major programs :
  - the child survival and immunization program; and
  - the safe motherhood program.
- Training for the national child survival and safe motherhood program is primarily to strengthen management skills and ensure effective implementation of services through a thorough understanding and mastery of (i) program components (ii) management information (iii) materials management, cold chain and supplies (iv) district planning, implementation and supervision and (v) communication.
- In order to operationalize the training plan, several steps would have to be systematically followed. An appropriate set of training materials will be developed to match the project needs. These materials will deal with the management issues related to the program such as planning, scheduling, materials management, communication, organization of service delivery, supervision, as well as the specific technical aspects of field based programs. The training curriculum would include, in addition to managerial and technical aspects, the organization of services for children and women at villages, sub-centres, primary health centres and community health centres/district hospitals. Therefore, appropriate practical exercises would be incorporated in the training program itself at all levels.
- Training will be skill based. Training will include only those activities which are part of the program.
- All trainers at the regional level must undergo training at the national/regional training program. Similarly, all trainers for the district/divisional level training of middle level

managers must undergo training at the regional level. The trainers of health workers must also undergo training at the regional level before they conduct training.

- All training for Material and Child Health services under various area development projects will use training modules and training strategies developed for the National Child Survival and Safe Motherhood program. Their additional concerns related to the public health (e.g. tuberculosis, malaria, leprosy) can be addressed by additional training programs/materials.

- Training for Child Survival and Safe Motherhood program will integrate the following components of the program:

For pregnant women	For children
° Ante–natal care	° Newborn care
° Immunization against tetanus	° Immunization by 12 months of age
° Anaemia control & therapy	° Vitamin A prophy laxis of children 9 months – 3 years
° Check up to identify complications & referral	° Control of acute respiratory/infections/ pneumonia for children below 5 years
° Care during delivery	° Control of diarrhoeal diseases for children below 5 years
° Promotion of timing & spacing of births	

- Continuing education, consisting of on-the-job supportive supervision, will be facilitative along the lines of the experience gained under DANIDA-assisted area project in Tamil Nadu and Madhya Pradesh, and which is being expanded now under India Population Projects. Monthly meetings will be used, particularly at sector-level, for continuous update of important topics for para-medical workers.

- Review meetings will be used for solving operational bottlenecks and refresher courses and implementing short refresher programs (selection of topics and contents of the refresher programs will be based on seasonal patterns of diseases and public health problem).

TRAINING FOR ALL LEVELS OF FUNCTIONARIES

The type and levels of training/orientation under the program are:

*	Middle level managers training	– national level – regional level – district/divisional level
*	Health workers training	– with the district (venue : nursing college, ANM Training School, LHV Training Schools)
*	Village level functionaries	– at the sub-centre
*	Mothers and TBAs orientation	– at village level

Initially, the above training will be conducted for health personnel from the districts phased in for the child survival and safe motherhood project. Subsequently, training of trainers for area development projects, other intersectoral programs such as ICDS, UBS, DWCRA and NGOs will be held to ensure uniformity in implementation of MCH activities through various channels and also to increase the out-reach.

CORE TRAINING TEAMS

Trainers drawn from the Department of Health and Family Welfare at the centre and states, institutions such as HFWTC, and a few individuals with public health experience, are identified as part of the national core training team. Members of the national core training team will act as facilitator and trainers for the training of (i) district level managers for child survival and safe motherhood and (ii) core group of trainers for each state. Such training courses will be organized at regional level, combining participants from two or more states.

District level managers include (a) Deputy Chief Medical Officer of Health (b) District Immunization Officer/District MCH Officer (c) District Public Health Nurse. The core group of trainers from each state will be functional at district level and will include some (a) district level managers drawn from the previous category (b) Sister Tutors from the ANM/LHV Training Schools (c) select officials from the State Department of Health and Family Welfare (d) Faculty from Nursing Schools, Medical Collages, Health and Family Welfare Training Centres as well as (e) individuals with public health experience. Wherever possible, members of National Core Team will support training at district level.

The Core Trainers (30 per district) will support training of (i) all midlevel managers and (ii) health functionaries. In each district, four courses will be conducted for mid-level managers.

The first of these four courses will create a team of 30 members who will in turn organise training for health functionaries in five locations within the district (where there is a district/sub-divisional facility for stay and training). Simultaneously, three additional courses will be conducted for mid-level managers within the district.

The training load for basic training to all levels of functionaries in the state is given in the following table:

The training load for basic training to all levels of functionaries in the state is given in the following table:

Type of training	1992–	1993–	1994–	1995–	Total
Number of districts	7	4	4	5	20
District core training team (venue–state/distict HQ)					
No. of trainees	210	120	120	150	600
No. of courses	7	4	4	5	20
Mid level managers – All medical officers (venue: district HQ)					
No. of trainees	1407	800	800	1000	4000
No. of courses	45	26	26	33	133
Health functionaries at field level (5 venues per district)					
No. of trainees	5000	3200	3200	4000	15400
No. of courses	166	106	106	133	511

DURATION OF TRAINING

A. National Core trainers (venue – Delhi)

Total duration 6 days

Day 1 – Interventions for Child Survival
Day 2 – Interventions for Safe Motherhood
Day 3 – Evaluate service coverage
Day 4 – Conduct disease surveillance
Day 5 – Manage cold chain & other supplies
Day 6 – Plan and implement MCH services

B. Core trainers from state/districts (venue – regional locations)

Total duration 7 days

Day 1 – Interventions for Child Survival
Day 2 – Interventions for Safe Motherhood
Day 3 – Evaluate service coverage (field)
Day 4 – Conduct disease surveillance
Day 5 – Manage cold chain & other supplies
Day 6 – Train Health Functionaries
Day 7 – Plan and implement MCH services

C. Core trainers from within districts

(who will in turn conduct training for health functionaries along with trainees at level B (Venue district headquarters)

Total duration 7 days

Day 1 – Interventions for Child Survival
Day 2 – Interventions for Safe Motherhood
Day 3 – Evaluate service coverage (field)
Day 4 – Conduct disease surveillance
Day 5 – Manage cold chain & other supplies
Day 6 – Train Health Functionaries
Day 7 – Plan and implement MCH services

D. Mid–level managers

(excluding mid–level managers who will be trainers) (Venue – district headquarters)

Total duration 6 days

Day 1 – Interventions for Child Survival
Day 2 – Interventions for Safe Motherhood
Day 3 – Evaluate service coverage
Day 4 – Conduct disease surveillance
Day 5 – Manage cold chain & other supplies
Day 6 – Plan and implement MCH services

E. Health functionaries

(using health workers manual & mothers module) (Venue – ANM/LHV training schools sub–district hospital nursing school)

Total duration 5 days

Day 1 – Interventions for Child Survival
Day 2 – Interventions for Safe Motherhood
Day 3 – Evaluate service coverage
Day 4 – Manage cold chain & other supplies conduct disease surveillance
Day 5 – Schedule & implement MCH services & mobilize communities/mothers

SOCIAL MOBILISATION AND COMMUNICATION

The social mobilization and communication strategy will have three distinct components:

- interpersonal communication
- multi-media coordination
- distribution and use of IEC materials

The communication Networks in Karnataka include:

Television:	High Power Transmitters (5 nos) Low Power Transmitters (20 Nos)
Radio :	Broadcasting stations at Bangalore, Dharwad, Bhadrawathi, Gulbarga, Mysore, Mangalore, Hossur, Chitradurga, Hospet, Raichur, Marcara (11 nos)
Press :	Kannada dailies - 6
Cinema :	Over 1000 theatres

Manpower available for communication/extension activities in the state is as follows:

Regional Field Publicity Unit (GOI)	:	6
Song & Drama Unit	:	1
Press Information Bureau (GOI)	:	1
District mass media units	:	20 (1 in each district)
District Mass Media Education Officers	:	20
District Public Relations Officer	:	20
District Education Officers	:	20

Interpersonal communication:

Currently, in Karnataka the mass media extension activities are being carried out by District Health Education Officer with two Deputy Health Education Officers under the District Health & Family Welfare Officer. At the block level, there is a Block Health Educator who along with other front line workers play complementary roles. The presence of youth clubs, mahila

mandals and women's health groups at the community level will be coopted in all communication activities.

- o A strategy for involvement of the elected representatives at the Zilla Parishad level will be developed and implemented.

- o The interpersonal strategy will also involve the TBAs who will be held responsible for the registration of pregnant women and children below 3 years of age. She will help in registration of births and deaths; referral of 'at risk' mothers and children; motivate and mobilize community for immunization and vitamin A, anaemia control programs.

- o In urban areas which require special attention; a multi-media campaign involving print/audio-visual will be launched for improved utilization of services along with involvement of NGOs, private medical practitioners, urban health centres, post-partum units.

- o Communication will be designed keeping in view the goals and aims of the safe motherhood and child survival package of services. IEC materials will be provided at state level based on GOI policy. Inter-media publicity coordination meeting will be held regularly.

- o At the state level ten 16 mm films, five 35 mm films, a set five cinema slides and five radio spots will be produced per year. At the district level IEC activities will be based on :

  - multi-media/multi-sectoral approach
  - group approach
  - person-to-person contacts

Details are given in Annexures IV along with an estimate of funds required.

- o In the multi-media approach screening of film shows, video shows, slides in cinema halls, folk and cultural programs, exhibitions during religious festivals and fairs, radio spots, press releases, television spots, distribution of hand bills, messages on ration cards, school textbooks, hoardings will be undertaken.

- o In the group approach, group meetings, sessions in adult education classes, meeting with ICDS, involvement of local elected leaders at Zilla Parishad level, activities with NGOs, Mahila Arogya Sansthas, DWCRAs, Youth Clubs will be used to promote safe

motherhood and child survival. Banners, mobile mike announcements, stickers and distribution of pamphlets will complement the group action for communication.

- o In person-to-person contact eligible mothers, private medical practitioners, TBAs, village leaders, Mahila Mandal members, AWWs, teachers, health workers, NGOs, satisfied acceptors of services and community celebrities will be contacted. Systematic plans will be drawn up to involve them in safe motherhood and child survival activities.

- o The district administration at block, village level will be coopted for all inter-sectoral coordination/review meetings.

- o Local NGOs, trade unions, consumer forums, citizens' action groups and other organized groups will be systematically included for supporting the programs.

- o The IEC activities and communication inputs will be systematically monitored and evaluated by the Directorate of Health and Family Welfare Department on a yearly basis. Impact assessment will be carried out after fifth year of implementation of program by an external agency.

INTER-SECTORAL LINKAGES

Objectives

To ensure inter-sectoral co-ordination among various Government and non-Government agencies for achieving the goal of Child Survival and Safe Motherhood.

Strategies

a) Identify the roles and responsibilities of various participating agencies.

b) Qualitatively improve the implementation of existing schemes to ensure that the benefit in its undiluted form reaches the intended beneficiaries at right time and place.

c) To provide necessary support for achieving convergence of services provided by different programs at the delivery point for an integrated and synergetic approach in implementation.

d) To make people aware of these programs and their entitlement.

e) To organise the beneficiaries into cohesive groups with the help of voluntary agencies or mahila mandals.

f) To make beneficiary the focal point of all programs.

g) To simplify procedures for all programs to make them user- friendly to the beneficiaries.

Participating Agencies and their Roles

1. ICDS

    a) Early registration of ANC by AWS and FHWS

    b) Antenatal Check-up by ANM and LHV

    c) TT immunization by ANM and LHV

    d) Iron supplementation by ANM and LHV

    e) Identification of high risk pregnancy and referral by ANM and LHV.

    f) Birth registration by AW and ANM

g) Recognizing LBW, perform and babies with obvious congenital defects by AW and ANM.

h) Immunization of infants and children; identification and follow- up of drop-out cases by AW and ANM.

2. **Panchayat**

a) Panchayat non-officials to spread messages on CS and SM during their meetings with people.

3. **DWCRA**

a) Aim is to help women to supplement their family income as a result of which their children are benefited.

b) Groups of women below poverty line are formed to take up generating activities. Revolving fund of Rs. 15,000/- per group is provided in addition to loans and subsidies available under IRDP. This is implemented in 11 districts.

Role of DWCRA Groups

a) DWCRA groups to serve as resource groups by training them to motivate and educate other women on CSSM.

b) Identification and follow-up of drop-out cases among children and pregnant women.

4. **IRDP**

Since 40% of beneficiaries are women and since the program is being implemented since last 10 years in almost all villages, these beneficiaries can be organised into homogeneous groups which in turn can serve the same purpose as the DWCRA group.

5. **UBSP (Urban Basis Services)**

It is a poverty alleviation program for the urban poor. It is presently implemented in 3 cities - Bangalore, Raichur and Tumkur.

Children and women are the focus of this program. It works on the basis of neighbourhood planning, implementation and monitoring.

Role of UBSP

a) Neighbourhood groups to serve as resource group by training them to motivate and educate other women on CSSM.

b) Identification of follow-up of drop-out cases among children and pregnant women.

c) Provision of safe drinking water and sanitation.

d) Enumeration of eligible population.

6. **Education : Role**

a) Teachers to serve as motivators by orienting them to educate students, parents and other community people on CSSM.

b) Padayathras by school children to draw the attention of community to CSSM.

c) Incorporate CSSM in the curriculum of teacher trainees.

Adult Education

Orientation of adult education teachers on CSSM.

7. **Urban Bodies**

There are six city corporations, 20 CMS and 15 TMC in the state. Provide general orientation to non-officials and officials of municipal bodies regarding CSSM.

8. **NGOs and their Role**

a) IEC and social mobilization - Rotary, Lions Club, trade unions, religious organisations like mutts, churches etc., NSS, Bharat Scouts, Mahila Swastha Sangh; Milk Co-operative Societies.

b) Delivery of services : IMA, private health institutions (run by charitable organisations).

c) Founding : Milk Co-operative societies, Merchants' Association, Rotary, Lions Club

MATERIALS MANAGEMENT

I VACCINE DISTRIBUTION SYSTEM

The vaccine distribution system will be regularly monitored to ensure constant availability of vaccines up to primary health centres. Supplies will be given on a fixed date every month. The immediate high centre will take responsibility of vaccine distribution to the centre below. The vaccine flow will be from state to regional centres; then to districts, primary health centres in vaccine vans; and ultimately from the PHC to the sub- centre in either the primary health centre vehicle or two- wheelers. The location of WIC in the state along with district covered in shown below:

1. Karnataka (State store) supplies also to
   - (a) Bangalore (U)
   - (b) Bangalore (R)
   - (c) Tumkur
   - (d) Kolar
   - (e) Chitradurga
2. Gulbarga, supplies also to
   - (a) Bidar
3. Raichur
4. Bellary
5. Belgaum, supplies also to
   - (a) Bijapur
   - (b) Dharwad
   - (c) Uttar Kannada

5. Mangalore, supplies also to

   (a) Chikamaglur

   (b) Shimoga

6. Mysore, supplies also to

   (a) Mandya

   (b) Hassan

   (c) Kodagu

II LOGISTICS SYSTEM OF SUPPLIES

The supplies under the program will be of two types:

(a) One time supply

   (i) Addl. Cold Chain equipments

   (ii) Sub-Centre equipment

   – mid-wifery kit I

   – sub-centre equipment kit as the enhanced safe motherhood districts are phased in

   (iii) Equipment for first level referral centres

(b) Recurring supplies - to be provided to the regional stores, for distribution to the PHCs, sub-centres in the form of kits. The sub-centre health workers will in turn distribute certain items of the drug kit to the community members identified as depot holders. In the initial period, some of these items will be distributed to the PHCs and sub-centres individually. Once the logistics system for supplies is in the place, the items meant for sub-centres will be pre-packed and distributed. The contents of the kit will be:

   (i) I.F.A. tablets

   (ii) Vitamin 'A' concentrated solution

   (iii) ORS packets

   (iv) Co-trimaxazole for pneumonia control

(v) Disposable delivery kits prepared locally at district level with the help of women's groups, NGOs etc.

(vii) Mother-infant immunization cards

(ix) Mother-child care register

(x) Needles and syringes

Regional maintenance centre for health equipment

The WIC locations will be the most suitable place as a base for maintenance of health equipments on regional basis. A detailed planning exercise on maintenance and management of spare parts at the state level will be developed. At the district level, the district plans will include a section on preventive maintenance of equipment at sub-centre PHC and first level referral centres.

III COLD CHAIN EQUIPMENT MAINTENANCE

Overall objectives

The overall objective is to have a sound maintenance plan for the State for Karnataka ensuring that:

- at any point of time, not more than 2% of the cold chain equipment (ILR/Deep Freezers) remain out of order; and all WICs functional.
- break-down is attended immediately, and minor repairs carried out within 3 days and major repairs within 7 days;
- adequate quantity of spare parts and float assemblies available for storage at the defined levels at all times;

In order to achieve the above goals, the following need to be established:

(a) Effective state/region/district teams in the state of Karnataka for cold chain maintenance;

(b) Base/s for effective maintenance system; and workshops with storage space as well as tools instruments for repair;

(c) An effective spares management system to ensure availability of spare parts and other consumables;

(d) A system for management of float-assemblies required under the Cold Chain System;

(e) An effective reporting and monitoring system which will provide information to the state on the status of maintenance of cold chain system as well as cater to the needs of various regions/units.

(f) A plan for timely replacement of equipment which are unrepairable and ageing and;

(g) Contingency plan to meet vaccine storage needs under emergency situations.

Break down of equipment - follow up measures

So far, the system of maintaining equipment has been either ad- hoc or left entirely to personnel who were not able to appreciate the urgency of getting repairs done in time. Under the Child Survival and Safe Motherhood program, it is intended to have minimal equipment out of order at any point of time, all repairs responded to and attended within 7 days in case they are minor, and within 21 days in case of major repairs.

It is very essential to know:

- the details related to breakdown of equipment
- categorization of repairs as major and minor
- concept of float assembly/spare units to be redeployed to replace defective units
- spare parts should be available at various levels

The following definitions are used, and information collected:

Down Time : For a cold chain equipment down time means the period the equipment remains out of service (e.g. if an ILR is out of order on 10 April and is functional on 13 April, the down time is 3 days).

Response Time : The time required to get the defect attended to form the time of sending information at actually attending it is called response time (e.g. if an ILR is out of order on 10 April and a message is sent for the mechanic, and a refrigerator mechanic attends to it on 12 April to check the fault, the response time is 2 days).

Cold Chain Sickness Rate : This is the proportion of cold chain equipment out of order at any point of time (e.g. if there are 100 ILRs/Freezers in a district and 7 are out of order, the cold chain sickness rate on that day is 7%).

Sickness reporting.: Efficient reporting system contributes greatly to reduce the "down time" of the equipment and lead time for actual repair action. It is desirable for efficient maintenance that the reporting should be direct from "who wants the service" to "who will provide the service" (with intimation to the other officers concerned).

The most reliable means of communication (post, telegraph, telephone, special messenger etc. in the concerned area) which is fastest will be used. **The aim is to maintain a response time of one week.**

In order to have an effective maintenance system, the following must be ensured:

- adequate quantity of spare parts for minor repairs, which should be available with the refrigerator mechanic. A list of the items to be carried by the district mechanic when he goes to attend to a break-down call, as well as the quantity, is given in Table in the following page. Fast moving spares should be available at WIC location.
- repairs are categorized as major and minor, and are also listed in the table. The district mechanic can undertake minor repairing on site, and must be fully equipped to do so. All major repairs will have to be undertaken at a workshop. The maximum time allowed for reinstallation of ILR/Freezer after a major repair including transportation to and fro is 3 weeks.
- the district mechanic should have contingency funds available with him for minor repairs (at least Rs. 50/-)

ILR/FREEZER REPAIRS AT DIFFERENT LEVELS AND RELATED SPARES

Level	Repairs	Materials
AT SITE (PHC) **MINOR**	1. Starting problem 2. Thermostat 3. Electrical 4. Gasket damage 5. Lid problem	1. Starting device 2. Thermostat 3. Starting capacitor (Elx) 4. Fan motor (Elx) 5. 15A 3–pin plug top 6. 15S socket 7. 3 crore cable 8. Insulation tape
REPAIR CENTRE (District/ Regional HQ) **MAJOR**	1. Gas Leak 2. Compressor defect 3. Checking	1. Compressor 2. Starting device 3. Starting cap (Elx) 4. Thermostats 5. Fan Motor (Elx) 6. Drier 7. 1/4" copper tubes 8. Refrigerant F–12 9. Compressor oil 10. Brazing rod 11. Brazing flux 12. Kerosene/LPG

Float assembly

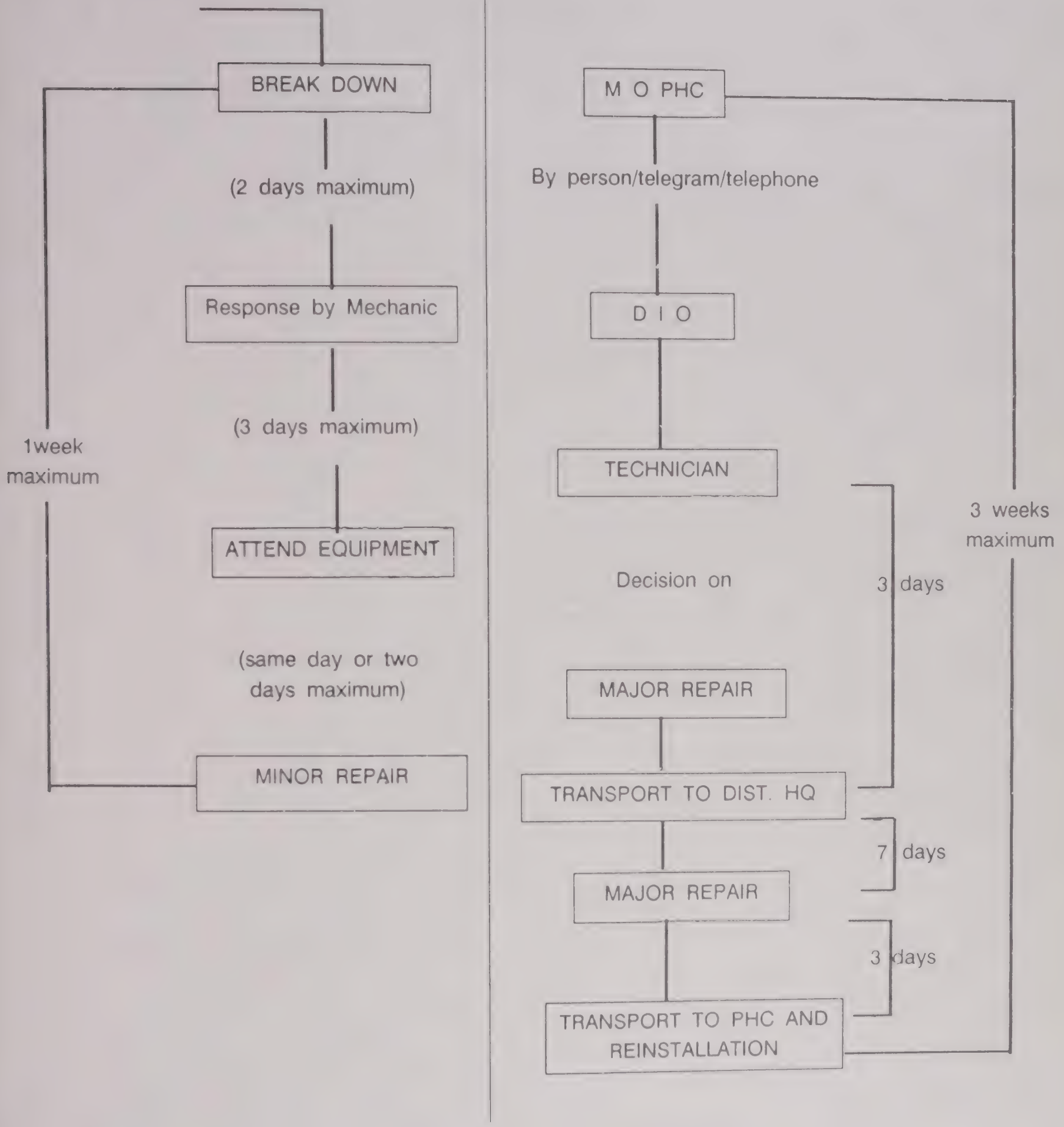
A float assembly is a stock of spare units of cold chain equipment (at district/state headquarters) for immediate replacement of defective units (brought from the Primary Health Centres). The defective units once repaired goes into the float assembly.

Norms of float assembly at WIC location/District HQ :

1.	ILR MK-140	5% at WIC point
2.	Freezers SB-140	5% at WIC point
3.	Voltage stabilizer-1 KVA	20% at district HQ

Float assemblies are required for the effective maintenance of the cold chain so that no time is lost while the machine is out of order. District mechanics should therefore have voltage stabilizers which they can replace at the site and bring the defective instruments back to the workshop. At district level, 20% spare voltage stabilizers should be available as a float assembly to ensure timely replacement.

Given below is a Flow-chart giving details of responsibility following repair of a unit for an effective maintenance system



MANAGEMENT INFORMATION SYSTEM
AND
EPIDEMIC CONTROL

The State of Karnataka will strengthen and enlarge the existing Management Information System under 4 distinct categories as below:

1. Community level records and reports. For example, health card, registers, and monthly reporting formats.

2. Surveillance

3. Epidemic control measures

4. Expanded coverage evaluation surveys

1. **Community level records, registers and monthly reports**

Karnataka will follow the formats prescribed by the Government of India. Monthly reports from the sub-centre level upto the central level incorporating:

- coverage date
- disease surveillance
- stock position
- status of essential equipment

The data generated will be minimal to avoid unnecessary information which cannot be used.

2. **Surveillance**

The existing passive surveillance will be strengthened and active surveillance by the health functionaries will be incorporated. The sentinel surveillance centres will be strengthened. Cases of ARI, diarrhoea, vitamin A deficiency, low birth weight babies, puerperal sepsis, anaemia, toxaemic conditions in addition to the existing vaccine preventable diseases reporting.

The existing institutional information will be subjected for auditing so that useful data can be generated which can be used for planning and implementation of the project activities.

The medical college hospitals will have quarterly review meetings where in the departments of paediatrics, obstetric gynecology and preventive and social medicine will review the data of surveillance and take suitable corrective measures.

3. Epidemic control

The well-known epidemic control measures of cholera and gastro- enteritis like information sources, confirmation of diagnosis, line listing of case, identifying index case, tracing of source of infection, initiating containment measures and management of cases will be expanded to epidemics of poliomyelitis, measles etc.

The confirmation of polio cases by stool examination for virus culture will be initiated for the confirmation of diagnosis.

Central reserve teams from the district headquarters to management if required along with necessary drugs and supplies will be supplemented.

4. Coverage evaluation

Karnataka has a good precedence of doing coverage evaluation surveys under UIP. The existing coverage evaluation will be expanded to include coverage of vitamin A. Reasons for non- utilization of vitamin A and IFA, ORS and cotrimoxazole for pneumonia therapy. The mother coverage will include IFA coverage for lactating mothers. The disease surveillance portion of evaluation will include diarrhoea episodes and ARI episodes in addition to lameness due to poliomyelitis and neonatal tetanus.

The management of the information generated will stress on:

- local analysis and immediate action at sub-centres, health centres, towns and cities
- in the bigger institutions the surveillance data from different departments will be collated by head of the institution and necessary action initiated.
- uniform standard protocols for recording, reporting, individual case sheets designed by the Government of India will be used at all levels.
- all sources of data in a district will be reporting to district medical and health officers to facilitate planning activities for district implementation of the programs.

ANNEXURE - I(A)

KARNATAKA - GENERAL STATISTICS

1991

STATE/DIST	POPULATION	GROWTH RATE (1981-91)	DENSITY	SEX RATIO	FEMALE LITERACY RATE	ESTIMATED MATERNAL DEATHS	ESTIMATED UNDER 1 YR DEATHS	ESTIMATED UNDER 5 YR DEATHS	SC POPULATION (1981)	ST POPULATION (1981)
INDIA	84,39,30,861	23 50	267	929 00	39 42	1,43,468	23,24,186	48,48,371	-	-
KARNATAKA	4,47,81,398	19 41	316	985 65	36.93	7,613	1,23,328	2,6,656	85,98,000	18,27,000
BANGALORE (R)	16,65,468	14.70	286	950.00	32.86	283	4,587	9,173	7,92,000	76,000
BANGALORE (U)	48,23,951	38.00	2,203	903.00	59.71	820	13,285	26,570	-	-
SHIMOGA	19,00,429	14.71	180	961.00	43.42	323	5,234	10,468	2,64,000	52,000
GULBARGA	25,73,900	23.71	159	962.00	20.14	438	7,089	14,177	4,55,000	98,000
RAICHUR	23,07,049	29.33	165	978.00	17.83	392	6,354	12,707	2,70,000	17,77,000
CHITRADURGA	21,77,638	22.51	201	944.00	36.30	370	5,997	11,994	3,22,000	2,52,000
BELLARY	18,92,715	778 09	191	957.00	26.22	322	5,213	10,425	2,44,0000	1,85,000
KODAGU	4,85,229	5.05	118	989.00	52.65	82	1,336	2,673	49,000	39,000
MYSORE	31,55,995	21.58	264	953.00	32.07	537	8,692	17,383	4,60,000	1,67,000
DAKSHIN KANNADA	26,92,081	13 27	319	1,063 00	59.17	488	7,414	14,828	1,44,000	88,000
UTTAR KANNADA	12,18,367	13.49	118	967.00	48.25	207	3,355	6,711	86,000	10,000
CHICKMAGALUR	10,16,839	11.52	141	977.00	43.98	173	2,800	5,601	1,67,000	15,00
BIDAR	12,15,060	25.65	230	953.00	24.82	207	3,346	6,693	1,60,000	43,000
BELGAUM	35,20,406	18.18	262	959.00	32.47	598	9,695	19,390	33,13,000	1,16,000
BIJAPUR	29,14,667	21.35	171	965.00	33.99	495	8,027	16,054	3,63,000	1,15,000
DHARWAR	34,98,814	18.79	255	945.00	37.52	595	9,636	19,271	3,01,000	1,37,000
KOLAR	22,11,304	21.58	269	966.00	32.25	376	6,090	12,180	4,71,000	1,14,000
MANDYA	16,43,626	15.90	331	962.00	31.46	279	4,527	9,053	1,83,000	12,000
TUMKUR	23,01,448	16.36	217	959.00	35.79	391	6,338	12,678	3,34,000	1,40,000
HASAN	15,66,412	15.43	230	1,000.00	37.65	266	4,314	8,628	2,20,000	11,000
TOTAL :	4,47,81,398	19.41	315.50	965.85	36.93	7,613	1,23,328	2,46,656	5,98,0000	18,27,000

ANNEXURE – i (B)

RURAL HEALTH STATISTICS — 1990-91

Sl. No.	Items	INDIA	KARNATAKA	KERALA	T.NADU	A.P.
1.	Popln. served by each sub-centre	4592	3771	4565	4134	5803
2.	Popln. served by each PHC	29185	259.40	26249	25897	35710
3.	Popln. served by each CHC	3.22 lacs	2.01 lacs	4.3 lacs	4.98 lacs	9.96 lacs
4.	No. of Sub-centres	130533	7793	5094	8681	7894
5.	No.of PHCs	20540	1133	886	1386	1283
6.	N.of CHCs	1862	146	54	72	46
7.	Ave. No. of Villages covered by each Sun-centre	4.51	3.46	0.26	1.73	3.47
8.	Ave. No. of villages covered by each PHC	28.66	23.85	1.54	11.42	21.34
9.	Ave. No. of villages covered by each CHC	300.48	185.12	25.22	219.87	595.19
10.	Ave. rural area covered by a Sub-Centre (in Kms)	24.08	24.13	7.28	14.31	34.33
11.	Ave. rural area covered by a PHC	153.07	166.02	41.84	89.61	211.24
12.	Ave. rural CHC covered (in Kms)	1690.82	1288.41	686.57	1724.96	5891.78
13.	Max radial distance covered by a Sub-Centre (in Kms)	2.77	2.77	1.52	2.13	3.3
14.	Max. radial distance covered by a PHC (kms)	6.98	7.27	3.65	5.34	8.2
15.	Max. radial distance covered by a CHC (kms)	23.19	20.25	14.78	23.43	43.3
16.	Ratio of PCH/Sub-centre	1:16.3	1:6.8	1:5.7	1:6.3	1:6.1
17.	Ratio of CHC/PHC	1:11.1	1:7.7	1:16.4	1:19.2	1:27.9
18.	Popln. servied by per Dai	1011	772	8003	964	1021
19.	Popln. served by per ANM	4897	3481	4565	4220	7298
20.	Popln. served by per MPW(M)	7594	6171	5969	9318	6457
21.	Ratio LHV to ANM	1:6.8	1:6.6	1:7.5	1:4.4	1:3.5
22.	Ratio of SHA TO MPW (M)	1:3.4	1:7.0	1:3.7	1:0.9	1:4.4
23.	ANM vacancy %age	8.32	8.40	–	2.00	10.6
24.	LHV vacancy %age	17.4	12.30	37.50	13.00	7.8
25.	MPW (M) vacancy %age	9.3	13.40	23.50	13.60	11.9
26.	SHA(M) vacancy %age	7.9	19.80	11.30	6.70	–

Source – HEALTH STATISTICS – DEC. 1990, CBHI GOI.

DISTRICT-WISE IMMUNIZATION COVERAGE IN 1991-92
KARNATAKA

DISTRICT	TARGET	DPT		OPV		BCG		MEASLES		T.T. (P.W.)		
		ACHMT	%	ACHMT	%	ACHMT	%	ACHMT	%	TARGET	ACHMT	%
BANGALORE (U)	123600	136428	110.38	136428	110.38	125446	101.49	124251	100.53	134300	148080	110.26
BANGALORE (R)	42700	38121	89.28	38118	89.27	44358	103.88	35521	83.19	46400	45145	97.30
CHITRADURGA	55800	47691	85.47	47717	85.51	55435	99.35	47134	84.47	60700	58384	96.18
KOLAR	56600	54991	97.16	54763	96.75	64442	113.86	47819	84.49	61600	62211	100.99
SHIMOGA	48700	48127	98.82	47658	97.86	49713	102.08	44716	91.82	53000	45725	86.27
TUMKUR	59000	54253	91.95	54253	91.95	58609	99.34	51203	86.78	64100	56015	87.39
BELGAUM	90300	72638	80.44	73358	81.24	87126	96.49	68472	75.83	98200	90294	91.95
BIJAPUR	74700	66133	88.53	66271	88.72	71543	95.77	55690	74.55	81300	76245	93.78
DHARWAD	89700	80247	89.46	80922	90.21	88943	99.16	75414	84.07	97500	98912	101.45
U. KANNADA	31200	24964	80.01	24963	80.01	27345	87.64	20646	66.17	33900	24622	72.63
BELLARY	48500	44175	91.08	44175	91.08	45268	93.34	36835	75.95	52700	45293	85.94
BIDAR	32100	31633	98.55	31633	98.55	30609	95.36	27620	86.04	34900	32118	92.03
GULBARGA	66000	59282	89.82	59873	90.72	66224	100.34	59208	89.71	71700	61134	85.26
RAICHUR	59000	55057	93.32	54419	93.93	62320	105.63	48493	82.19	64100	66603	103.90
CHIKMAGALUR	26000	24114	92.75	24190	93.04	24412	93.89	22371	86.04	28300	25743	90.96
D. KANNADA	69000	64094	92.89	63904	92.61	62531	90.62	52956	76.75	75100	64042	85.28
HASSAN	40100	40934	102.08	40981	102.20	39707	99.02	39451	98.38	43600	45747	104.92
KODAGU	12400	11730	94.60	11956	96.42	13009	104.91	10844	87.45	13500	14401	106.67
MANDYA	42100	42120	100.05	42120	100.05	42575	101.13	39289	93.32	45800	48494	105.88
MYSORE	80900	68884	85.15	68884	85.15	74115	91.61	62903	77.75	88000	74727	84.92
TOTAL	1148400	1065616	92.18	1067586	93.00	1133730	98.70	970836	84.50	104051	1183935	94.80

DIRECTORATE OF HEALTH AND FAMILY WELFARE SERVICES, BANGALORE, KARNATAKA STATE

Statement – 1

Progress Under Maternal and Child Health Services in KARNATAKA STATE for the month of MARCH 1990-91 – by Districts

(RURAL – URBAN)

DISTRICT/DIVISION	ESTI-MATED POPULA-TION	PRE NATAL REGISTRATION				DELIVARIES CONDUCTED BY										
						FEMALE HEALTH WORKER				TRAINED DAIS						
		ANNUAL TARGET	DURING THE MONTH	CUMU-LATIVE	%AGE	ANNUAL TARGET	DURING THE MONTH	CUMU-LATIVE	%AGE	ANNUAL TARGET	DURING MONTH		CUMULATIVE			
											REGD	UN-REGD	REGD	UN-REGD	TOTAL	%AGE
1. BANGALORE (U)	55,27,500	1,44,600	2,267	25,555	17.7	1,07,060	318	3,663	3.4	29,260	234	45	3,519	297	3,816	12.9
2. BANGALORE (R)	18,10,000	59,430	2,989	42,370	71.3	41,740	684	9,568	21.1	11,800	410	34	5,568	264	5,832	49.4
3. CHITRADURGA	21,29,300	60,200	6,956	66,909	111.1	42,140	1,456	14,743	33.9	12,040	959	53	10,472	2,763	13,235	109.9
4. KOLAR	22,98,400	64,500	5,412	55,024	85.3	45,150	1,339	17,446	36.5	12,900	1,033	280	9,909	1,859	11,768	91.2
5. SHIMOGA	19,84,700	56,100	4,464	59,461	106.0	39,270	1,173	14,970	27.6	11,220	737	49	10,169	840	11,009	98.1
6. TUMKUR	23,69,200	67,000	5,911	73,075	109.1	46,900	1,475	17,569	35.2	13,400	629	16	7,232	280	7,512	56.1
1. BANGALORE DN	1,61,19,100	4,51,830	27,999	3,22,394	71.4	3,22,260	6,445	77,959	21.9	90,980	4,002	477	46,869	6,303	53,172	58.4
7. BELGAUM	35,70,200	1,01,000	8,040	95,090	94.1	70,700	2,361	26,324	36.5	20,200	923	173	12,487	1,176	13,663	67.6
8. BIJAPUR	23,77,300	85,000	6,114	71,257	83.08	53,500	1,578	19,029	35.1	17,000	1,149	145	16,901	1,722	18,623	109.5
9. DHARWAD	35,28,600	99,900	2,623	88,827	88.9	69,930	1,839	21,684	30.4	19,980	1,672	366	22,512	1,719	24,231	121.3
10. U.K.ANNADA	12,86,200	36,400	1,031	21,273	58.4	25,480	250	4,351	14.2	7,280	241	2	3,506	172	3,678	50.5
2. BELGUM DN	1,12,62,300	3,22,300	17,808	2,76,447	85.8	2,19,610	6,028	71,388	31.6	64,460	3,985	686	55,406	4,789	60,185	93.4
11. BELLARY	17,83,700	50,400	3,838	51,156	101.5	35,280	1,016	14,072	38.5	10,080	766	32	10,879	1,600	12,479	123.8
12. BIDAR	11,92,900	33,600	2,532	33,833	100.7	23,520	1,136	11,642	44.1	6,720	549	68	6,205	2,916	9,121	135.7
13. GULBARGA	24,92,400	70,500	4,342	44,588	63.2	49,350	1,186	12,348	25.0	4,100	883	137	11,719	1,853	13,572	331.0
14. RAICHUR	21,36000	60,400	5,134	58,775	97.3	42,280	1,476	21,564	48.9	12,080	1,310	218	13,845	2,199	16,044	132.8
3. GULBURGA DN	76,05,000	2,14,900	15,846	1,88,352	87.6	1,50,430	4,814	59,626	37.9	32,980	3,508	455	42,648	8,568	51,216	155.3
15. CHICKMAGALUR	10,92,000	30,900	2,162	28,182	91.2	21,630	719	7.059	31.1	6,180	178		1,854	38	1,892	30.6
16. DAK. KANNADA	28,47,200	80,500	5,700	70,297	87.3	56,350	831	8,757	15.5	16,100	476	211	5,213	330	5,543	34.3
17. HASSAN	16,25,500	46,000	4,469	57,164	124.3	32,200	1,008	12,652	32.4	9,200	379	6	4,402	302	4,704	51.1
18. KODAGU	5,53,600	15,600	1,221	18,744	120.2	10,920	138	1,892	16.8	3,120	133		1,196	18	1,214	38.9
19. MANDYA	16,93,700	48,000	4,125	45,784	95.4	33,600	820	9,786	27.4	9,600	400	43	5,307	464	5,771	60.1
20. MYSORE	31,09,600	88,000	4,961	61,009	69.3	61,600	1,308	17,685	37.1	17,600	944	51	12,193	357	12,550	71.3
4. MYSORE DN	1,09,26,600	3,09,000	22,637	2,81,180	91.0	2,16,300	4,824	57,831	24.8	61,800	2,510	311	30,165	1,509	31,674	51.3
STATE TOTAL	4,59,13,000	12,98,030	84,290	10,68,373	84.9	9,08,600	22,111	2,66,804	27.6	2,50,220	14,005	1,929	1,75,088	21,169	1,96,257	78.4
1988-'89	3,71,35,804	11,97,000	85,152	10,59,785	88.54	5,98,495	22,047	2,56,849	42.92	3,42,000	13,009	1,604	1,49,792	20,629	1,70,421	49.83
1989-'90	4,42,37,900	11,32,100	76,038	10,66,109	94.17	5,62,290	23,700	2,74,832	48.87	3,62,340	14,144	1,784	1,66,745	26,795	1,93,540	53.41

ANNEXURE III (B)

M.C.H. SERVICES – SURVEY REPORTS

Sl. No.	Name of the District	Popl. in lakhs	Date of survey	Ante-natal care given	Urine exam./ B.P. checked	Iron and Folic acid beneficiaries	T.T. FOR ANTENATAL CASES IInd DOSE / BOOSTER						DELIVERY SERVICES						
							Source of Immunization						Place of Delivery			Deliveries attended by			
							Total immuni-zation/ Immu. cards	Hospi-tal	Health centre	Out reach	Private	Drop out	Health centre/ Hospital	Home	Other place	Health Staff	Trained Dai	Untrai-ned Dai	Others
1.	CHIKMAGALUR	11.05	Sept. 8S	76.7	---	---	78.6	---	---	---	---	8.3	37.6	61.4	1.0	52.4	12.9	11.0	23.8
2.	RAICHUR	21.85	Apr. 88	60.2	---	---	48.3 (4.3)	17.6	24.5	44.1	13.7	7.6	15.1	8.3	1.9	25.1	24.6	34.6	48.3
3.	KOLAR	23.70	May 88	77.3	---	---	68.3	15.021.2	41.5	41.5	4.6	4.4	14.8	76.8	8.4	49. 8		38.7	11.5
4.	SHIMOGA	20.42	May 88	89.5	---	---	81.9 (26.6)	25.5	12.4	29.2	15.6	6.5	36.2	54.3	9.5	57.1	12.4	20.5	10.0
5.	BELLARY	18.77	June 88	54.6	---	---	40.9 (5.0)	21.4	32.1	26.8	16.1	19.6	13.6	85.5	0.9	25.0	16.8	46.8	11.4
6.	HASSAN	16.45	Aug. 38	93	---	59.0	85.0	22.0	39.0	46.0	15.0	3.0	40.0	60.0	---	52.0	9.0	19.0	20.0
7.	CHITRADURGA	21.89	Sept. 88	65.2	---	51.9	63.8 (3.3)	39.6	23.2	12.7	24.6	4.6	28.1	66.7	5.3	52.9	14.8	26.2	6.2
8.	GULBARGA	24.83	Sept. 88	59.5	---	---	40.5 (1.9)	7.8	53.9	18.5	19.9	29.8	13.8	80.5	5.7	26.7	14.8	56.2	2.4
9.	U. KANNADA	13.05	Oct. 88	81.0	---	67.3	81.0 (4.3)	26.9	9.9	33.5	29.7	6.0	45.5	42.7	11.9	54.0	23.2	11.9	10.9
10.	BIDAR	11.91	Nov. 88	52.1	26.3/ 23.0	45.0	64.8	31.9	18.9	21.0	28.3	2.1	25.3	69.6	5.2	17.4	17.8	31.0	16.4
11.	BELGAUM	36.00	Dec. 88	53.3	36.7/ 36.2	51.9	78.1 (10.1)	22.5	11.6	46.3	18.9	1.19	31.4	60.0	8.6	44.3 (9.5 HS)	20.0	19.5	16.2
12.	TUMKUR	24.03	May 89	81.5	---	---	79.6 (8.1)	41.7	25.6	23.2	9.5	2.9	31.7	65.9	2.4	54.0	4.7	38.4	1.9
13.	BIJAPUR	28.75	May 89	60.9	---	---	55.7	16.0	10.5	51.1	22.4	8.8	27.1	70.0	2.9	31.9	7.6	33.3	27.2

Social Mobilization Process

	Target Group	Activity	Implementor	Budget in Rs.(lakhs)
1.	Policy makers MI.As/MI.Cs/MPs/KSMs	Annual workshop	COK	0.05
2.	Religious leaders	Orientation to support CS&CM	COK	0.05
3.	Political Leaders	Appeal	COK	–
4.	Community Leaders	Mass Media and Public speech	COK	–
5.	N.P. Members	Orientation workshop	COK	0.10
6.	Mandal Members	Orientation workshop	COK	0.08
7.	NGOs	Communications	COK	–
8	Youth organizations	Orientation workshops to managers	COK	0.03
9.	Coordinating departments	Communication	COK	–
10.	Village level community organizations	Orientation groups	COK	0.05
11.	Teachers' Training institutions	Orientation workshops	COK	0.20
12.	Community	Propagation of Messages on CS and SM	COK	–
13.	Trade Unions/consumer forum/citizen forum/ chamber of commerce	Orientation workshop	COK	0.20
		Total at District Level		1.21
		For 20 districts		24.20

NB: Non-governmental agencies/social workers/others will be coopted in implementation of these activities wherever possible and whenever required.

DETAILS OF COST FOR COMMUNICATION AND IEC ACTIVITIES

Sl.No.	Item	No.	Unit cost (Rs.)	Total Cost (Rs. in lakhs)
1.	Journalist workship, field Publicity, Govt of India, Song and Drama Division and DAVP (2 workshops in year)	50 members	10,000.00	0.20
2.	Selected folk media artist workshop	50 members	20,000.00	0.20
3.	Conference of voluntary Organization representatives	50 members	10,000.00	0.10
4.	Conference of officers of Development Departments	50 members	10,000.00	0.10
State Level IEC Activities				
1.	Film 16mm (10 varieties	10	1.5 lakhs	15.00
2.	Prints (100 each)	1000	0.03 lakhs	3.00
3.	Film 35mm (5 varieties)	5	0.50	2.50
4.	Prints (100 each	500	0.02	1.00
5.	Cinema slides (35mm) (5 variety) 1000 each	5000	25.00	1.25
6.	Posters 50,000 each (10 variety)	5 lakhs	1.00	5.00
7.	Folders 10 lakhs (10 variety)	10 lakhs	2.00	20.00
8.	Booklet (2 lakhs each) 5 variety	10 lakhs	5.00	50.00
9.	Health Education kit	20,000	150.00	30.00
10.	Video production (10 variety)	10	50.000	5.00
11.	Cassette of copies each 150 X 10 variety	1500	200.00	3.00}8.50
12.	Transparency	–	–	0.50
13	Audio 10 cassette production	10	30,000.00	3.00
14.	Audio cassette copy (each 1000)	10,000	30.00	3.00
15.	Hoardings	200	10,000 each	20.00
16.	Metalic Tin plate (4 variety) each 15000	60.000	50.00 each	30.00
17.	Commercial Exhibition (state level) 10 big exhibitions	10	1 lakhs for each	10.00
18.	Slickers (5 variety – each variety 25000)	1,25,000	10.00 each	12.50
19.	School lable (1 lakh to each district)	20 lakhs	0.10	2.00
20.	Ration card (message to be printed)	Free		
21.	Film strips production (5 variety) each 1000 copies	5000	80.00 each	4.00
			C. Total	221.35

DISTRICT LEVEL IEC

	Item	No.	Unit Cost (Rs)	Total cost (Rs.in lakhs)
1.	Print Media	–	10,000.00	2.00
2.	OTC to journalist/field unit and other media unit	20	5,000.00	1.00
3.	Conference of NGOs at District level	20	5,000.00	1.00
4.	AV van for mass media activities	10	2 lakhs	20.00
5.	Orientation to ICDS, Aduilts Education, Women and Child Welfare and other Development Dept.	20	5,000.00	1.00
6.	Multi-media campaign	10	20,000.00	2.00
7.	Cinema slides	2000	25.00	2.5
8.	TV, VCP at Dist level	10	25,000	2.5
9.	PHC level TV and VCP	20	25,000	5.0
10.	Wall paintings	500	200.00	1.0
11.	Drama one in each district	20	1000.00	0.20
12.	Paining competition one in each District	20	500.00	1.00
			Total	39.20

IEC ACTIVITIES AT PHC LEVEL

S.No.	Items	No.	Unit Cost (Rs.)	Total (Rs. in lakhs)
1.	Supply AV aids			
	(a) P.A. Equipmen	100	6000.00	6.00
	(b) Film strip projector	100	3000.00	3.00
	(c) Tape recording	200	1500.00	3.00
	(d) Exhibition (sets) Rs. 2000/Dist	20	2000.00	4.00
2.	Orientation to			
	(a) TBA	500	500.00	2.50
	(b) Mahila Mandala	500	500.00	2.50
	(c) Honouring satisfied customers	500	500	2.50
3.	Foldk media 1 programme/s/c 5000 s/c	5000	100.00	5.00
4.	For arranging exhibition	500	500.00	2.50
5.	Printing of Handbills and other for 500 PHC	500	500.00	2.50
			Total	33.50

BUDGET ESTIMATE

SM & TEC ACTIVITIES

(1991 – 95)

S.No	Terms/Activities	Total cost (Rs in lakhs)
1.	Social Mobilization	24.20
2.	State level TEC	221.35
3.	District level TEC	39.20
	PHC/Sub-centre TEC	33.50
	Total :	318.25

List of Equipment for Sub–Centre

A. Midwifery Kit for A.N.M.

Sl.No.	Item Description	Quantity
1.	Aneriod Sphygmomanometer	1 Each
2.	Color coded Weighing Scale (Baby)	6 Each
3.	Instrument Sterilizer SS 222 x 22 x 41 mm	1 Each
4.	Spring Type Dressing Forceps - Stainless Steel (150 mm)	1 Each
5.	Kidney Basin - Stainless Steel (825 ml/280 oz)	1 Each
6.	Sponge bowl - Stainless Steel (600 ml)	2 Each
7.	Uretheral Catheter (12 Fr.) rubber	1 Each
8.	Clear vinyl plastic sheeting (910) mm wide)	2 Each
9.	Enema can with tubing	1 Each
10.	Clinical oral thermometer (Dual Celsius/Fahrenbelt Scale)	1 Each
11.	Clinical rectal thermometer (Dual Celsius/Fahrenbeit Scale)	1 Each
12.	Surgeon's hand brush with white nylon bristles	1 Each
13.	Mucus Extractor	1 Each
14.	Artery Forceps	2 Each
15.	Cord-cutting scissor	1 Each
16.	Cord ties/rubber band	1 Packet
17.	Nail Clipper	1 Each
18.	Foethoscope (Stetboscope Foctal)	1 Each
	Total	set

B. General Purpose Kit for A.N.M

Sl.No.	Item Description	Quantity
1.	Kit Bag	1 Each'
2.	Spring type dressing forceps - Stainless Steel (150 mm)	1 Each
3.	Surgical straight scissor (blunt/blunt stainless steel 140 mm)	1 Each
4.	Nail brush	1 Each
5.	Clear vinyl plastic sheeting (910 mm wide)	1 Each
6.	Spirit lamp with screw-cap; metal (60 ml.)	1 Each
7.	Aluminium Shield for spirit lamp	1 Each
8.	Polythene self-sealing bag (125 x 200 mm)	12 Each
9.	Arm circumference scale	1 Each
10.	Tape measure	1 Each
11.	Adhesive zing oxide tape (25 mm x 0.9 metre)	1 Roll
12.	Thermometer	1 Each
13.	Measuring Tape	1 Each
14.	Nail clipper	1 Each
	Total	set

List of Equipment at P.H.C. (PHC Kit)

Sl.No.	Item Description	Quantity
1.	Weighing Machine adult avoirdupois 350 LBS x 1/4 LB	1 Each
2.	Weighing Machine 16 Kgs x 20 G	1 Each
3.	Autoclave Bsain Kidney 825 ml (28 oz)	1 Each
4.	Kidney Tray - Str-connector	1 Each
5.	Jar Dressing with cover 0.945 litre stainless steel	1 Each
6.	Tray Instrument/dressing with cover 310 x 195 x 63 MMSS	1 Each
7.	Reagent Strips for urine test (Albumen + Sugar)	100 each
8.	Speculum Nasal Bosworth wire stainless steel	1 Each
9.	Sphygmomanometer Aneroid 300 mm with bandage cuff	1 Each
10.	Curette Uterine Blunt Thomas 280 mm size stainless steel	1 Each
11.	Dilator Uterine Hawkin, Hegar's set of 5	1 Each
12.	Forceps Hemostat straight Kelly 140 mm stainless steel	1 Each
13.	Forceps Sponge-holding straight 228 mm stainless steel	1 Each
14.	Forceps Tissue Spring-type 1 x 2 teech 150 mm stainless steel	1 Each
15.	Forceps Tissue 4 x 5 teech allis 150 mm stainless steel	1 Each
16.	Forceps tounge-holding rubber jaws Young 165 mm	1 Each
17.	Forceps Utility & sterilizer straight 280 mm stainless steel Cheatle	1 Each
18.	Forceps Uterine Vulsellum Straight Jacobs 250 mm	1 Each
19.	Knife-handle surgical for major surgery # 3	1 Each
20.	Knife-handle surgical for major surgery # 4	1 Each
21.	Knife-blade surgical for minor surgery 11 & 12 pkt. 5	1 Each
22.	Knife-blade surgical for minor surgery 15 pkt 5	2 Packet
23.	Knife-balde surgical for major surgery 22 pkt 5	2 Packet
24.	Needle Suture 3/8 circle cutting assorted	2 Packet
25.	Retractor Vaginal SIMS Medium Blade 32x80 mm Stainless steel	1 Each
26.	Scissors surgical curved 140 mm S/B stainless steel	1 Each
27.	Scissors surgical straight 140 mm S/B stainless steel	1 Each
28.	Speculum Vaginal Bi-value Cusco Medium stainless steel	1 Each
29.	Speculum Vaginal Bi-value Causco Small stainless steel	1 Each
30.	Speculum Vaginal Double-ended SIMS 1 stainless steel	1 Each
31.	Hemglobinometer-set Sahli-type complete	1 set
32.	Microscope Monocular with oil - 1 mm ORJW/OILL (PZO)	1 Each
33.	Rack Blood-Sedimentation Westergren 6 - 3/4 unit	1 Each
34.	Laryngoscope Set : Child	1 Each
35.	Uterine sound	1 Each
36.	Needle holder, straight, Mayo, 17.5 cm	1 Each
37.	Round bodied needles No.12, Size 6	2 Pkts
	Equipment for Resuscitation of Newborn	
1.	Suction Machine -- Electrical	1 Each
2.	Suction Machine -- Manual	1 Each
3.	Mucus Extractor	1 Each
4.	Laryngoscope with small blades	1 Each
5.	Endotracheal tubes with connectors	1 Each
6.	Oxygen Cylinders	1 Each
	Total	set

SURGICAL AND DELIVERY EQUIPMENT

Standard Laparotomy Set (instruments)

Sl.No	Item	Description	Qualntity
1.	Instrument Tray, stainless steel-31 cm x 20 cm x 6 cm		1 Each
2.	Surgeon Gloves : 6-1/2		12 Pair
3.	Surgeon Gloves : 7		12 Pair
4.	Surgeon Gloves : 7-1/2		12 Pair
5.	Surgeon Gloves : 8		12 Pair
6.	Towel clips, Backaus Box lock		4 Each
7.	Sponge holding forceps - 22.5 cm		6 Each
8.	Straight artery forceps - 16 cm		4 Each
9.	Hysterectomy forceps, straight - 22.5 cm		4 Each
10.	Mosquito forceps - 12.5 cm		6 Each
11.	Tissue forceps, Allis - 18.4 cm		6 Each
12.	Uterine Tenaculum forceps - 28 cm		1 Pair
13.	Needle holder, straight, Mayo - 17'5 cm		1 Each
14.	Surgical knife holder - No.3		1 Each
15.	Surgical knife holder - No.4		1 Each
16.	Surgical knife Blades		10 Pkts.
17.	Triangular point sucture needles - 7.3 cm, size 6		2 Pkts
18.	Round bodied needles No. 12, size 6		2 Pkts.
19.	Deavers abdominal retractor, size 3, 25 x 22.5 cm or		1 Each
	(Retractor abdominal kelley (Rs. 200) +)		4 Each
	(Retractor Vaginal SIMS, Small (Rs. 100))		2 Each
	(Retractor Vaginal SIMS, Medium (Rs. 100))		2 Each
20.	Richardson's double-ended abdominal retractor		2 Each
21.	Curved operating scissors, Mayo-blunt pointed, Mayo 17 cm.		1 Each
22.	Balfour abdominal retractor 3-blade self-retaining		1 Each
23.	Straight operating scissors, blunt pointed, 17 cm		1 Each
24.	Scissors, straight 23 cm		1 Each
25.	Suction tube - 22.5 cm 23 ft gauge		1 Each
26.	Intestinal clamps, curved - dry, 22.5 cm		2 Each
27.	Intestinal clamps, straight - 22.5 cm		2 Each
28.	Dressing forceps - 1.5 cm		2 Each
29.	Dressing forceps - 2.5 cm		1 Each
	Total		Set